

Handbook of Ultraviolet and Visible Absorption Spectra of Organic Compounds

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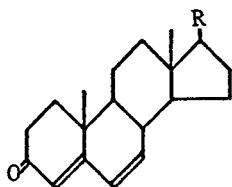
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λ_{\max} : 264-264.5m μ ... - ... λ_{\max} : 316-316.5m μ	544
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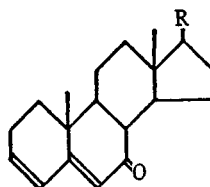
INTRODUCTION

Ultraviolet and visible absorptions of organic compounds are characteristic of absorbing systems that consist of a so-called chromophore group and the auxochromic groups bonded to it, rather than the chemical structure of the molecule as a whole.

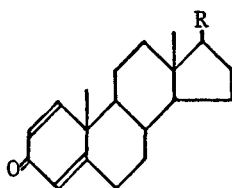
For example, the ultraviolet absorption maximum of the cholestadienone isomer (I) is close to that of (II), but entirely different from those of the other isomers, (III), (IV), and (V). However, it is very close to the absorption maximum of a nonsteroidal, 4-methyl-6-(2,6,6-trimethyl-2-cyclohexenyl)-3,5-hexadien-2-one (VI). This is natural because the absorbing system is the same in (I), (II), and (VI), but is quite different from those of (III), (IV), and (V).



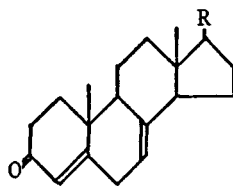
(I) cholesta-4,6-dien-3-one
 $\lambda_{\text{max}}^{\text{EtOH}}$ 285m μ (log ϵ 4.4)



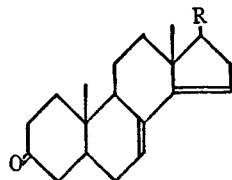
(II) cholesta-3,5-dien-7-one
 $\lambda_{\text{max}}^{\text{EtOH}}$ 277m μ (log ϵ 4.4)



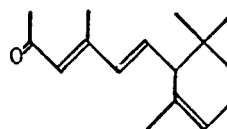
(III) cholesta-1,4-dien-3-one
 $\lambda_{\text{max}}^{\text{MeOH}}$ 245m μ (log ϵ 4.2)



(IV) cholesta-4,7-dien-3-one
 $\lambda_{\text{max}}^{\text{EtOH}}$ 238m μ (log ϵ 4.2)



(V) cholesta-7,14-dien-3-one
 $\lambda_{\text{max}}^{\text{EtOH}}$ 242m μ (log ϵ 4.0)



(VI) 4-methyl-6-(2,6,6-trimethyl-2-cyclohexenyl)-3,5-hexadien-2-one
 $\lambda_{\text{max}}^{\text{EtOH}}$ 285m μ (log ϵ 4.2)

Studies of ultraviolet and visible absorption spectra started long before the study of infrared absorption spectra, and a far larger number of spectral measurements is available. Still, they have not been fully utilized for the identification of organic compounds and the most important reason for this state of affairs is that these data have not been organized from the point of view of the absorbing system, as outlined above.

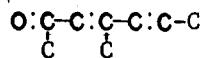
Having realized the need for such a collection of data, the writer collected, classified, and published such data as a part of "Yuki Kagaku Teisu Binran," a volume in "Dai Yuki Kagaku" (Series of Comprehensive Organic Chemistry, 25 vols. with an index volume, Asakura Shoten, Tokyo, 1960-1963).

In that publication, rules were proposed for notation and for the order of the absorbing systems. The collection of data was certainly useful in utilizing ultraviolet and visible absorption spectra, but it included only a table for identifying absorption maxima from absorbing systems and no table in which the absorbing systems could be found from the absorption maxima, which would be the most convenient method for structural identification.

This shortcoming has now been corrected, and the revised and enlarged version that has been compiled for the present edition does contain a tabulation according to absorption maxima.

Table I is a list from which absorption maxima can be found from the absorbing systems, i.e., from the chemical structure. In general, the absorption of strongest intensity in a range of about 50m μ in wavelength was taken as the absorption maximum. Consequently, the distance between two absorption maxima is usually more than 50m μ .

This table is used in the following manner. To look for the absorption maximum of cholesta-4,6-dien-3-one (I), we look under the absorbing system



The order of the arrangement of absorbing systems is explained in detail under "Explanation of Notation and Arrangement." The desired absorbing system can be found directly from Table I by following this order of arrangement, or the chromophore group in this absorbing system (O:C-C:C-C:C in the above example) can be found from the "List of Chromophores" from which the compound number of (O:C)(C:C)₂ is found as 772-831.

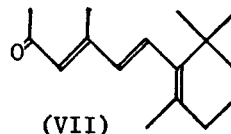
Table II is a reverse index of Table I. It is a list of absorbing systems to be found from the wavelengths of absorption maxima.

Ultraviolet and visible absorptions of organic compounds can be determined approximately from the absorbing system, but the solvent used and measurement error must also be taken into account. Consequently, it is better to examine the wavelength regions around the desired wavelength.

For example, if an unsaturated ketone having no substituent other than one keto group has an absorption maximum at 285m μ (log ϵ 4.42) in ethanol, the following absorption maxima in a range of 285 \pm 5m μ can be found from Table II.

	(O:C)(C:C)		(O:C)(C:C) ₂		(O:C)(C:C) ₃		(O:C)(C:C) ₆	
$\lambda_{\text{max.}}$	log ϵ	no.	log ϵ	no.	log ϵ	no.	log ϵ	no.
-5m μ = 280m μ	4.0	717	4.2	794	---	---	---	---
	4.0	756	3.9	812				
			4.3	828				
-4m μ = 281m μ		---		---	---	---		---
-3m μ = 282m μ	4.4	727	4.4	804	---	---		---
	3.3	757						
-2m μ = 283m μ		---	4.4	815	---	---		---
-1m μ = 284m μ	4.1	648		---	---	---		---
\pm 0m μ = 285m μ	3.8	713	4.3	797	4.1	850	4.1	869
			4.2	806				
			4.4	807				
+1m μ = 286m μ		---		---	---	---		---
+2m μ = 287m μ	4.3	719	4.4	783	---	---		---
			4.4	827				
+3m μ = 288m μ		---	4.5	799	---	---		---
+4m μ = 289m μ		---	4.4	807	---	---		---
			4.4	808				
+5m μ = 290m μ		---	4.2	793	---	---		---
				795				
			4.1	805				
			4.1	813				

Examination of the absorbing system of these compounds from compound numbers in Table I shows that the (O:C)(C:C) group, and compounds 783, 827, and 828 in the (O:C)(C:C)₂ group are not the desired systems, because they have auxochromes joined to the chromophore. The (O:C)(C:C)₆ group has a stronger absorption maximum at 393mμ (logε 4.8) and is not the desired system. Further, compounds 793, 794, 795, 797, and 799 of the (O:C)(C:C)₂ group are dienal and are therefore unsuitable. Consequently, the absorbing systems that remain are those which include compounds 804, 805, 806,



807, 808, 812, 813, and 815, i.e., a dienone of $\text{O}:\underset{\text{C}}{\text{C}}-\text{C}:\text{C}-\text{C}:\text{C}$ type, with two or three alkyl auxochromes, or a trienone of type (VII) with a steric hindrance like compound 850.

These conclusions are based on the chemical observation that there is no hetero-atom in the molecule other than the oxygen atom in the keto group and on spectral observations of the absorption maximum and intensity, but the possible absorbing systems can be further narrowed by comparing ultraviolet absorption curves.

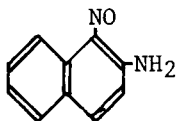
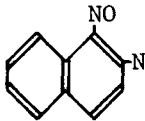
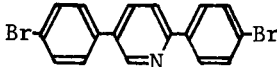
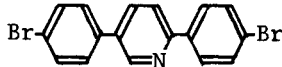
Grateful acknowledgement is made to Dorothy U. Mizoguchi for her cooperation in preparing the manuscript.

Kenzo Hirayama

EXPLANATION ON NOTATION AND ARRANGEMENT

ABSORBING SYSTEM

An absorbing system consists of a chromophore or conjugated chromophores, printed in bold face type in Table I, and an atom or atoms, if any, joined to the chromophore or conjugated chromophores, and sometimes, consists merely of auxochromic atoms.

e.g. compound	absorbing system	notation
$\text{HC}\equiv\text{C}-\text{CH}=\text{CH}_2$	$\text{C}\equiv\text{C}-\text{C}=\text{C}$	C:C-C:C
$\begin{array}{c} \text{H}_3\text{C}-\text{O} \\ \text{H}_3\text{C} \end{array} > \text{C}=\text{C}-\text{C}=\text{CH}_2$ $\qquad\qquad\qquad \text{CH}_3 \quad \text{CH}_3$	$\begin{array}{c} \text{O} \\ \text{C} \end{array} > \text{C}=\text{C}-\text{C}=\text{C}$ $\qquad\qquad\qquad \text{C} \quad \text{C} \quad \text{C}$	OC-C:C-C:C
		N-66-N:O
		Br-6-N6-6-Br
Cl-NH₂	Cl-N	Cl-N

Rules determine the notation and sequence of absorbing systems, as mentioned below.

PRINCIPLE OF CITING AND ARRANGING ABSORBING SYSTEMS

Rule 1. The more predominant factor in an absorbing system is cited as early as possible. Absorbing systems having a more predominant factor are placed later in the tables.

For example, C:C predominated over C:C as mentioned in Rule 3, and therefore the chromophore of butenyne is denoted such as **C:C-C:C** (not **C:C-C:C**), and **C:C** precedes **C:C** in the tables.

PREDOMINANCY OF ATOMS AND BONDS



Rule 2. The order of increasing predominancy of atoms or elements is as follows:
H, C, and other atoms in the order of ascending group number of the Periodic Table and increasing atomic number in the group.

Rule 3. The order of increasing predominancy of bonds is as follows:
single bond < coordinate bond < double bond < triple bond
(An expression $a < b$ indicates that b predominates over a .)

NOTATION OF UNIT CHROMOPHORE

1. Aliphatic chromophores are denoted by atomic symbol and sign of unsaturated bonds.

e.g. **C:C C:C C:C:C N:N N:N:N N:C N:C N:C:N**
P:P O:N O:C:C O:As S:C S:C:S S:C:N S:C:O

Nitro and azoxy chromophores are denoted as  and , respectively. Chromo-

phores of carboxylic acid (including ester), and its derivatives of type -CO-X such as amide, halide, and thiolic acid (including ester) are regarded as an unit chromophore and denoted as:



Chromophores of carbonic acid (including ester), and its derivatives such as $\text{H}_2\text{N}-\text{CO}-\text{NH}_2$, $\text{H}_2\text{N}-\text{COOH}$, $(\text{HS})_2\text{CO}$, COCl_2 are regarded also as an unit chromophore and denoted

as $O:CO_2$, $O:CN_2$, $O:CON$, $O:CS_2$, $O:CCl_2$.

2. Benzene chromophore is denoted by Arabic numeral 6, and carboaromatic condensed chromophores are denoted by Arabic numerals with or without subscript Arabic numerals, respectively indicating the number of atoms in each ring and the number of rings, cited in the decreasing order of the numerals denoting number of atoms.

e.g. naphthalene 66, azulene 75, indacene 655, anthracene and phenanthrene 6₃

3. Heteroaromatic chromophores are denoted by atomic symbol with or without subscript Arabic numerals, respectively indicating the kind and number of the hetero-atom, and the notation of the corresponding carboaromatic chromophore.

e.g. thiophene S5, pyridine N6, indene N65, pyrimidine N₂6, purine N₄65, thiazole SN5, benzothiazole SN65

4. Fulvenoid, quinonoid, and tropoquinonoid structures are denoted by symbols representing the corresponding genuine aromatic chromophore, the exocyclic double bond(s), and the atom(s) joined to the exocyclic double bond(s).

e.g. methylenecyclopentadiene (fulvene) 5:C, dihydropyridinone (pyridone) N6:O, pyranone (pyrone) O6:O, tropone 7:O, methyleneindole N65:C, benzoquinone di-imine N:6:N, naphthoquinone O:66:O, dihydromethylenefuranone (methylene-crotonolactone) O:O5:C, tropoquinone $\begin{matrix} O: \\ O: \end{matrix} 7:O$

PREDOMINANCY OF UNIT CHROMOPHORE

Rule 4. The predominancy of unit chromophores is determined by applying the following criteria in series until a decision is reached.

a) Heteroaromatic unit chromophores predominate over carboaromatic unit chromophores, which predominate over aliphatic unit chromophores.

e.g. C:C < 66 < N6

b) The predominancy of heteroaromatic unit chromophores is determined first by hetero-atoms contained in the ring, from the point of (i) the predominancy of the most predominant hetero-atom and, if there is a choice, of the subsequent predominant hetero-atom(s), (ii) a larger total number of hetero-atoms, and (iii) a larger total number of the most predominant hetero-atom and, if there is a choice, the subsequent predominant hetero-atom(s).

Examples for (i): N6:S < O5, N665 < O65 < S5, O6 < ON5, ON5 < OP5

for (ii): SN65 < SN₂65

for (iii): SN₂65 < S₂N55, SeSN₂665 < SeS₂N665

c) The most predominant is that containing a larger total number of rings.

e.g. 6 < 75 < 6₃, SN5 < SN65, O:6:O < 66

d) The most predominant is that containing a larger ring.

e.g. 5:O < 6 < 7:O, 55 < 65:O < 66 < 75 < 76:O, N5 < N6 < N7:O

e) The predominancy increases with the sequence of genuine aromatic, fulvenoid, quinonoid, and tropoquinonoid structures.

e.g. 6 < O:6:O, 7:O < $\begin{matrix} O: \\ O: \end{matrix} 7:O$, N6 < N6:O < O:N6:O

f) The predominancy of aliphatic unit chromophores is determined first by componental atoms, from the point of (i) the predominancy of the most predominant componental atom and, if there is a choice, of the subsequent predominant componental atoms(s), (ii) a larger total number of componental atoms joined with unsaturated bond(s), and (iii) a larger total number of the most predominant componental atom and, if there is a choice, of the subsequent predominant componental atom(s).

Examples for (i): $\text{C}:\text{C} < \text{N}:\text{N} < \text{N}:\text{C} < \text{O}:\text{C} < \text{O}:\text{N} < \text{O}:\text{C}:\text{N} < \text{O}:\text{As}$
 for (ii): $\text{C}:\text{C} < \text{C}:\text{C}:\text{C}, \text{O}:\text{C} < \text{O}:\text{C}:\text{C}, \text{O}:\text{C} < \text{O}:\text{C}:\text{O}, \text{N}:\text{C} < \text{N}:\text{C}:\text{N}$
 for (iii): $\text{N}:\text{C}:\text{C} < \text{N}:\text{C}:\text{N}$

g) The most predominant is that containing a more predominant bond.

e.g. $\text{C}:\text{C} < \text{C}:\text{C}, \text{N}:\text{C} < \text{N}:\text{C}$

h) The more predominant is that containing a larger total number of a more predominant componental atom(s) joined with coordinate bond(s) or a single bond(s) to the atom joined with unsaturated bond(s) and, if there is a choice, the subsequent predominant componental atom(s) similarly joined.

e.g. $\text{O}:\text{C} < \text{O}:\underset{\text{N}}{\text{C}} < \text{O}:\text{CN}_2 < \text{O}:\underset{\text{O}}{\text{C}} < \text{O}:\text{CON} < \text{O}:\underset{\text{S}}{\text{C}} < \text{O}:\text{CS}_2 < \text{O}:\text{CSO} < \text{O}:\underset{\text{Cl}}{\text{C}} < \text{O}:\text{CCl}_2,$
 $\text{O}:\text{N} < \text{O}:\underset{\text{O}}{\text{N}}, \text{N}:\text{N} < \text{N}:\underset{\text{O}}{\text{N}}$

NOTATION OF CONJUGATED CHROMOPHORES

Conjugated chromophores are denoted by the notation of componental unit chromophores joined by a hyphen.

e.g. $\text{C}:\text{C}-\text{C}:\text{C}, \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{O}, \text{O}:\text{C}-\text{66}-\text{C}:\text{C}, \text{O}:\underset{\text{O}}{\text{C}}-\text{N66}-\text{C}:\text{O}$

When there is a choice, the direction is so chosen as to make the most predominant chromophore and, if there is a choice, the subsequent predominant chromophore(s) come as early as possible.

e.g. $\text{C}:\text{C}-\text{C}:\text{C}, \text{O}:\underset{\text{O}}{\text{C}}-\underset{\text{O}}{\text{C}}-\text{C}:\text{C}, \text{O}:\text{C}-\text{N}:\text{C}-\text{C}:\text{C}, \text{O}:\underset{\text{O}}{\text{C}}-\underset{\text{O}}{\text{C}}-\text{C}:\text{C}, \text{N}:\underset{\text{O}}{\text{C}}-\underset{\text{O}}{\text{C}}-\text{C}:\text{C},$
 $\text{6-C}:\text{C}, \text{C}:\text{C}-\text{6-C}:\text{C}, \text{66-6}, \text{N6-6}, \text{S5-6-N6}$

Sometimes, the notation of unit chromophores in conjugation may be reversed, such as $\text{N}:\text{C}$ to $\text{C}:\text{N}$ in $\text{6-C}:\text{N}$.

NOTATION OF AUXOCHROMIC ATOMS

Auxochromic atoms are denoted by atomic symbol(s) joined by a hyphen to the atom in the chromophore. Hydrogen atom is not regarded as an auxochrome, and not necessary to be denoted.

e.g. $\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}, \text{N}:\text{C}-\text{C}, \text{O}-\text{N}:\text{C}-\text{C}_2$ (not $\text{O}-\text{N}:\text{C}-\text{C}_2^{\text{O}}$), $\text{OC-6}, \text{Cl-N6}$

When there is a choice, the direction is so chosen as to make the symbol of the most predominant auxochromic atom, and if there is a choice, that of the subsequent predominant auxochromic atom(s), come as early as possible.

e.g. $\text{C}-\text{C}:\text{C}-\text{C}:\text{C}$ (not $\text{C}:\text{C}-\text{C}:\text{C}-\text{C}$), $\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}-\text{C}:\text{C}$ (not $\text{C}:\text{C}-\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}$)
 $\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}$ (not $\text{C}-\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}-\text{C}:\text{C}$), $\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}-\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}$ (not $\text{C}:\text{C}-\underset{\text{Cl}}{\text{C}}-\underset{\text{Cl}}{\text{C}}-\text{C}:\text{C}$)

NOTATION OF LONG CONJUGATED ABSORBING SYSTEMS

In addition to the above measures, sometimes, long conjugated absorbing systems may be denoted in an abbreviated manner.

e.g. $(\text{C}:\text{C})_5-\text{C}_4$ instead of $\text{C}-\text{C}:\text{C}-\underset{\text{C}}{\text{C}}-\text{C}:\text{C}-\text{C}-\text{C}:\text{C}-\underset{\text{C}}{\text{C}}-\text{C}-\text{C}$
 $\text{6-[C:C]}_5-\text{6}$ instead of $\text{6-C}:\text{C}-\text{C}:\text{C}-\text{C}-\text{C}:\text{C}-\text{C}-\text{C}:\text{C}-\text{C}-\text{6}$

NOTATION AND ARRANGEMENT OF AUXOCHROMIC SYSTEM WITHOUT CHROMOPHORE

Auxochromic systems such as methane, chloromethane and bromomethane, have no chromophore, and they are treated as absorbing systems of no chromophore.

PREDOMINANCY OF ABSORBING SYSTEMS

Rule 5. The predominancy of absorbing systems is determined by applying the follow-

ing criteria in series until a decision is reached.

a) The predominancy is determined first by the most predominant unit chromophore and, if there is a choice, the subsequent predominant unit chromophore(s), contained in the absorbing system, from the point of (i) being predominant, (ii) being larger in total number, and (iii) being cited earlier.

Examples for (i): $\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < \text{C}:\text{C}-\text{C}:\text{C} < \text{C}:\text{C}-\text{C}:\text{C} < \text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < 6 < 6-\text{C}:\text{O} < \text{N}:\text{C}-6 < \text{N}6-\text{C}:\text{C}$
 for (ii): $\text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{O}$
 for (iii): $\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < \text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}, \text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C} < \text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}$

b) The predominancy is determined by earlier appearance of (i) the most predominant atom and, if there is a choice, the subsequent predominant atom(s), in the most predominant unit chromophore, and of (ii) the most predominant atom and, if there is a choice, the subsequent predominant atom(s), in the subsequent predominant unit chromophore(s).

Examples for (i): $\text{C}:\text{N}-\text{C}:\text{C} < \text{N}:\text{C}-\text{C}:\text{C}$
 for (ii): $\text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{N} < \text{N}:\text{C}-\text{C}:\text{C}-\text{N}:\text{C}$

c) The predominancy is determined by the most predominant auxochromic atom and, if there is a choice, the subsequent predominant auxochromic atom(s), joined to the most predominant atom in the most predominant unit chromophore, from the point of (i) being predominant, (ii) being larger in total number, and (iii) being cited earlier.

Examples for (i): $\text{C}-\text{N}:\text{C}-\text{C}:\text{C} < \text{N}-\text{N}:\text{C}-\text{C}:\text{C} < \text{O}-\text{N}:\text{C}-\text{C}:\text{C}, \text{BrN}-6-\text{C}:\text{C} < \text{BrCl}-6-\text{C}:\text{C}$
 for (ii): $\text{ClC}_3-6-\text{C}:\text{C} < \text{Cl}_2\text{C}-6-\text{C}:\text{C}, \text{ClC}-6-\text{C}:\text{C} < \text{ClC}_2-6-\text{C}:\text{C}$
 for (iii): $\text{C}:\text{C}-\text{C}:\text{C} < \text{C}-\text{C}:\text{C}-\text{C}:\text{C}$
 C

Criteria (c) to (f) determine the predominancy of absorbing systems by the nature of auxochromic atoms joined to the chromophores. When applying these criteria, the predominancy of C atoms of carboaromatic and heteroaromatic unit chromophores is regarded as same as that of C atoms of $\text{C}:\text{C}$, and the predominancy of hetero-atoms of heteroaromatic unit chromophores is regarded as higher than that of C atoms of $\text{C}:\text{C}$ and lower than that of C atoms of $\text{C}:\text{C}:\text{C}$, in order to make the determination by these criteria accord with the optical properties of absorbing systems.

e.g. $\text{C}-6-\text{C}:\text{C}-\text{C}:\text{C}:\text{C} < 6-\text{C}:\text{C}-\text{C}:\text{C}:\text{C}-\text{C}, \text{Br}-6-\text{C}:\text{N}-\text{N} < \text{Cl}-6-\text{C}:\text{N}-\text{O}$

d) The predominancy is determined similarly to (c) by the most predominant auxochromic atom and, if there is a choice, the subsequent predominant auxochromic atom(s), joined to the subsequent predominant atom(s) in the most predominant unit chromophore.

e.g. $\text{C}_2-\text{N}:\text{C}-\text{C}:\text{C} < \text{C}_2-\text{N}:\text{C}-\text{C}:\text{C}$
 N O

e) The predominancy is determined similarly to (c) by the most predominant auxochromic atom and, if there is a choice, the subsequent predominant auxochromic atom(s), joined to the most predominant atom in the subsequent predominant unit chromophore(s).

e.g. $\text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{N}-\text{N} < \text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{N}-\text{O}$

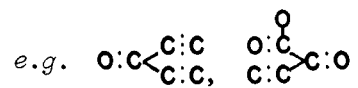
f) The predominancy is determined similarly to (c) by the most predominant auxochromic atom and, if there is a choice, the subsequent predominant auxochromic atom(s), joined to the subsequent predominant atom(s) in the subsequent predominant unit chromophore(s).

e.g. $\text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{N}-\text{C}_2 < \text{N}:\text{C}-\text{C}:\text{C}-\text{C}:\text{N}-\text{C}_2$
 C O

NOTATION AND ARRANGEMENT OF CROSS-CONJUGATED CHROMOPHORES

The direction denoting cross-conjugated chromophores is so chosen as to make the most predominant linear conjugation and, if there is a choice, to make the subsequent

predominant linear conjugation(s) come as early as possible.



The comparison of absorbing systems for arrangement is made from a more predominant linear conjugation.

TABLE I

ABSORPTION MAXIMUM FROM CHEMICAL STRUCTURE

ABBREVIATIONS AND SYMBOLS

A	alcohol
AA	acetic acid
Ac	acetone
B	benzene
C	chloroform
cH	cyclohexane
CD	carbon dioxide
D	dioxan
E	ether
EA	ethyl acetate
H	hexane
Hp	heptane
iO	isooctane or trimethylpentane
iP	isopropanol
L	liquid
M	methanol
PB	petroleum benzine
PE	petroleum ether
Py	pyridine
THF	tetrahydrofuran
V	vapor
W	water

Numbers in the column 'solv.' indicate pH-value.

An expression a/b concerning to solvent means 'a' in 'b', *e.g.* NH₃/A.

Italicized numbers in columns ' λ_{\max} .' and 'loge' in Table I indicate value for inflection or shoulder of absorption.

LIST OF CHROMOPHORES

chromophore	no.	chromophore	no.	chromophore	no.
Part 1. No chromophore		(C:C:C:C:C:C)	301	(O:C) (C:C)	634- 771
1- 54		(C:C:C:C:C:C:C:C:C:C)	302	(O:C) (C:C) ₂	772- 831
Part 2. (C:C)-Chromophores		Part 4. (N:N)-, (N:N)-, and		(O:C) (C:C) ₃	832- 852
(C:C)	55- 85	0		(O:C) (C:C) ₄	853- 859
(C:C) ₂	86- 153	(N:N:N)-Chromophore		(O:C) (C:C) ₅	860- 867
(C:C) ₃	154- 181	(N:N)	303- 304	(O:C) (C:C) ₆	868- 873
(C:C) ₄	182- 197	(N:N)	305- 307	(O:C) (C:C) ₇	874- 877
(C:C) ₅	198- 202	0		(O:C) (C:C) ₈	878- 881
(C:C) ₆	203- 206	(N:N:N)	308	(O:C) (C:C) ₉	882- 891
(C:C) ₇	207- 208			(O:C) (C:C) ₁₀	892- 896
(C:C) ₈	209- 210	Part 5. (N:C)-Chromophores		(O:C) (C:C) ₁₁	897- 900
(C:C) ₉	211- 215	(N:C)	309- 374	(O:C) (C:C) ₁₂	901
(C:C) ₁₀	216- 217	(N:C) ₂	375- 392	(O:C) ₂ (C:C)	902- 915
(C:C) ₁₁	218- 220	(N:C) (C:C)	393- 474	(O:C) ₂ (C:C) ₂	916- 918
(C:C) ₁₂	221- 222	(N:C) (C:C) ₂	475- 508	(O:C) ₂ (C:C) ₃	919
(C:C) ₁₃	223- 225	(N:C) (C:C) ₃	509- 525	(O:C) ₂ (C:C) ₇	920- 923
(C:C) ₁₄	226	(N:C) (C:C) ₄	526	(O:C) ₂ (C:C) ₈	924- 927
(C:C) ₁₅	227- 228	(N:C) (C:C) ₅	527- 528	(O:C) ₂ (C:C) ₉	928- 934
(C:C) ₁₉	229	(N:C) (C:C) ₆	529- 530	(O:C) ₂ (C:C) ₁₀	935- 938
Part 3. (C:C)-Chromophores		(N:C) (C:C) ₇	531- 534	(O:C) ₂ (C:C) ₁₁	939- 942
& Cumulenoid Chromophores		(N:C) (C:C) ₈	535- 536	(O:C) ₂ (C:C) ₁₂	943- 945
(C:C)	230- 232	(N:C) (C:C) ₉	537- 538	(O:C) (C:C)	946- 948
(C:C) ₂	233- 235	(N:C) (C:C) ₁₁	539	(O:C) (C:C) (C:C)	949- 952
(C:C) ₃	236- 237	(N:C) ₂ (C:C)	540	(O:C) (C:C) (C:C) ₂	953- 956
(C:C) ₄	238	(N:C) ₂ (C:C) ₂	541- 544	(O:C) (C:C) (C:C) ₃	957
(C:C) ₅	239	(N:C) ₂ (C:C) ₄	545- 546	(O:C) (N:C)	958- 967
(C:C) ₆	240	(N:C) ₂ (C:C) ₆	547- 548	(O:C) (N:C) ₂	968- 970
(C:C) ₇	241	(N:C) ₂ (C:C) ₈	549- 551	(O:C) (N:C) (C:C)	971- 972
(C:C) (C:C)	242- 257	(N:C) ₂ (C:C) ₉	552	(O:C) (N:N:C)	973
(C:C) (C:C) ₂	258- 268	(N:C) (C:C)	553- 554	Part 8. (O:C)-Chromophores	
(C:C) (C:C) ₃	269- 271	(N:C) (C:C) ₂	555- 556	N	
(C:C) (C:C) ₄	272- 273	(N:C) (C:C) (C:C)	557- 558	(O:C)	974- 981
(C:C) (C:C) ₆	274	(N:C) (C:C) (C:C) ₂	559- 562	N	
(C:C) (C:C) ₁₀	275	(N:C) (C:C) (C:C) ₃	563	(O:C) (C:C)	982- 987
(C:C) (C:C) ₁₁	276	Part 6. (N:C)-, (N:C:N)-,		N	
(C:C) (C:C) ₁₂	277	& (N:N:C)-Chromophores		(O:C) (C:C) ₂	988
(C:C) ₂ (C:C)	278- 281	(N:C)	564- 569	N	
(C:C) ₂ (C:C) ₂	282	(N:C) ₂	570	(O:C) (N:C)	989- 995
(C:C) ₂ (C:C) ₄	283- 284	(N:C) (C:C)	571- 575	N	
(C:C) ₂ (C:C) ₆	285	(N:C) (C:C) ₂	576	(O:CN ₂)	996
(C:C) ₃ (C:C)	286	(N:C) (C:C) ₃	577- 578	Part 9. (O:C)-Chromophores	
(C:C) ₃ (C:C) ₂	287- 288	(N:C) ₂ (C:C)	579	0	
(C:C) ₃ (C:C) ₃	289	(N:C) ₂ (C:C) ₂	580	(O:C)	999-1010
(C:C) ₄ (C:C) ₂	290	(N:C:N)	581	0	
(C:C) ₅ (C:C) ₂	291	(N:N:C)	582- 584	(O:C) ₂	1011
(C:C) ₆ (C:C) ₂	292	Part 7. (O:C)-Chromophores		0	
(C:C:C)	293- 296	(O:C)	585- 618	(O:C) (C:C)	1012-1075
(C:C:C) ₂	297- 298	(O:C) ₂	619- 631	0	
(C:C:C) (C:C) ₂ (C:C) ₂	299	(O:C) ₃	632- 633	(O:C) (C:C) ₂	1076-1087
(C:C:C:C)	300			0	

chromophore	no.	chromophore	no.	chromophore	no.
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(C:C)}_3 \end{array}$	1088-1090	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(N:C)} \end{array} \text{(C:C)}_2$	1182-1187	$\begin{array}{c} \text{(O:N)} \\ \\ \text{(N:C)} \end{array}$	1299
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(C:C)}_4 \end{array}$	1091-1096	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(N:C)} \end{array} \text{(C:C)}_3$	1188-1190	Part 12. Other aliphatic Chromophores	
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(C:C)}_5 \end{array}$	1097-1099	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(N:N:C)} \end{array}$	1191	$\begin{array}{c} \text{(S:C)} \\ \\ \text{(S:C:S)} \end{array}$	1300-1314
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(C:C)}_7 \end{array}$	1100-1102	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array}$	1192	$\begin{array}{c} \text{(S:C:S)} \\ \\ \text{(S:C:N)} \end{array}$	1315
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(C:C)}_{12} \end{array}$	1103-1105	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_2$	1193-1197	$\begin{array}{c} \text{(S:C:N)} \\ \\ \text{(S:C:O)} \end{array}$	1316
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)} \\ \\ \text{(O:C)} \end{array}$	1106-1124	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_5$	1198-1199	Part 13. Metallocene- and $\begin{array}{c} \text{X} \\ \\ \text{X} \end{array} \text{(5:X)} \text{-Chromophores}$	
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_2 \\ \\ \text{(O:C)} \end{array}$	1125-1137	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_6$	1200-1202	$\begin{array}{c} \text{(5-M)} \\ \\ \text{(5-M)} \end{array} \text{(O:C)}$	1318
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_3 \\ \\ \text{(O:C)} \end{array}$	1138-1142	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_7$	1203-1207	$\begin{array}{c} \text{(O:5:O)} \\ \\ \text{(O:5:O)} \end{array}$	1319
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_4 \\ \\ \text{(O:C)} \end{array}$	1143	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_8$	1208-1210	Part 14. (6)-Chromophores without other conjugated unit Chromophores	
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_5 \\ \\ \text{(O:C)} \end{array}$	1144	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_9$	1211-1213	(6)	1320-1322
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_7 \\ \\ \text{(O:C)} \end{array}$	1145-1148	$\begin{array}{c} \text{(O:C)}_2 \text{(O:C)} \text{(C:C)}_2 \\ \\ \text{(O:C)} \end{array}$	1214-1215	(6) ₂	1323-1854
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_9 \\ \\ \text{(O:C)} \end{array}$	1149-1150	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(O:C)} \text{(N:C)}$	1216-1217	(6) ₃	1855-1956
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}$	1151	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(O:C)} \text{(C:C)}_2$	1218	(6) ₄	1957-1965
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_2$	1152	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(O:C)} \text{(C:C)}_2$	1219	(6) ₅	1966-1971
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)}_3$	1153	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(O:C)} \text{(C:C)}_2$	1219	(6) ₆	1972-1975
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)} \text{(C:C)}_3$	1154	Part 10. Other $\begin{array}{c} \text{(O:C)} \\ \\ \text{X} \end{array} \text{-Chromophores and}$		(6) ₇	1976
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C)} \text{(C:C)}_4$	1155	$\begin{array}{c} \text{(O:C:C)} \text{-Chromophore} \\ \\ \text{(O:C:C)} \end{array}$		(6) ₈	1977
$\begin{array}{c} \text{(O:C)}_2 \text{(C:C)}_2 \text{(C:C)}_7 \\ \\ \text{(O:C)} \end{array}$	1156	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array}$	1220-1232	(6) ₉	1978
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(C:C:C)}$	1157	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array}$	1233-1235	(6) ₁₀	1979
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)}$	1158-1159	$\begin{array}{c} \text{(O:C)}_2 \\ \\ \text{(O:C)} \end{array}$	1236	(6) ₁₁	1980
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}_2$	1160	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array}$	1237	(6) ₁₂	1981
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}_5$	1161-1162	$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array}$	1238	(6) ₁₃	1982
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}_6$	1163-1164	$\begin{array}{c} \text{(O:C:C)} \\ \\ \text{(O:C:C)} \end{array}$	1239-1240	(6) ₁₄	1983
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}_7$	1165-1168	Part 11. $\begin{array}{c} \text{(O:N)} \text{- and } \text{(O:N)} \text{-} \\ \\ \text{O} \end{array}$ Chromophores		(6) ₁₅	1984
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}_8$	1169-1172	$\begin{array}{c} \text{(O:N)} \\ \\ \text{(O:N)} \end{array}$	1241-1261	Part 15. $\begin{array}{c} \text{(6)} \text{(C:C)} \text{-}, \\ \text{(6)} \text{(C:C)} \text{-}, \text{ and } \\ \text{(6)} \text{(Cumulenoid)} \text{-System} \end{array}$	
$\begin{array}{c} \text{(O:C)}_2 \text{(N:C)} \text{(C:C)}$	1173	$\begin{array}{c} \text{(O:N)} \\ \\ \text{(O:N)} \end{array} \text{(C:C)}$	1262-1287	$\begin{array}{c} \text{(6)} \text{(C:C)} \\ \\ \text{(6)} \text{(C:C)} \end{array}$	1985-2053
$\begin{array}{c} \text{(O:C)} \\ \\ \text{(O:C)} \end{array} \text{(N:C)} \text{(C:C)}$	1174-1181	$\begin{array}{c} \text{(O:N)} \\ \\ \text{(O:N)} \end{array} \text{(C:C)}_2$	1288-1297	$\begin{array}{c} \text{(6)} \text{(C:C)}_2 \\ \\ \text{(6)} \text{(C:C)}_3 \end{array}$	2054-2058
			1298	$\begin{array}{c} \text{(6)} \text{(C:C)}_4 \\ \\ \text{(6)}_2 \text{(C:C)} \end{array}$	2059
				$\begin{array}{c} \text{(6)} \text{(C:C)}_5 \\ \\ \text{(6)}_2 \text{(C:C)}_2 \end{array}$	2060
				$\begin{array}{c} \text{(6)} \text{(C:C)}_6 \\ \\ \text{(6)}_2 \text{(C:C)}_3 \end{array}$	2061-2096
				$\begin{array}{c} \text{(6)} \text{(C:C)}_7 \\ \\ \text{(6)}_2 \text{(C:C)}_4 \end{array}$	2097-2109
				$\begin{array}{c} \text{(6)}_3 \text{(C:C)} \\ \\ \text{(6)}_2 \text{(C:C)}_5 \end{array}$	2110-2111
				$\begin{array}{c} \text{(6)}_4 \text{(C:C)} \\ \\ \text{(6)}_2 \text{(C:C)}_6 \end{array}$	2112-2115
				$\begin{array}{c} \text{(6)}_5 \text{(C:C)} \\ \\ \text{(6)}_2 \text{(C:C)}_7 \end{array}$	2116
				$\begin{array}{c} \text{(6)}_6 \text{(C:C)} \\ \\ \text{(6)}_3 \text{(C:C)}_2 \end{array}$	2117
				$\begin{array}{c} \text{(6)}_7 \text{(C:C)} \\ \\ \text{(6)}_4 \text{(C:C)} \end{array}$	2118
				$\begin{array}{c} \text{(6)}_8 \text{(C:C)} \\ \\ \text{(6)}_5 \text{(C:C)}_3 \end{array}$	2119-2121
				$\begin{array}{c} \text{(6)}_9 \text{(C:C)} \\ \\ \text{(6)}_6 \text{(C:C)}_4 \end{array}$	2122-2124
				$\begin{array}{c} \text{(6)}_{10} \text{(C:C)} \\ \\ \text{(6)}_7 \text{(C:C)}_5 \end{array}$	2125
				$\begin{array}{c} \text{(6)}_{11} \text{(C:C)} \\ \\ \text{(6)}_8 \text{(C:C)}_6 \end{array}$	2126
				$\begin{array}{c} \text{(6)}_{12} \text{(C:C)} \\ \\ \text{(6)}_9 \text{(C:C)}_7 \end{array}$	2127-2130

chromophore	no.	chromophore	no.	chromophore	no.
$(6)_4(C:C)_4$	2131-2132	$(6)_2(N:C)_2(C:C)_4$	2612	$(6)(O:C)(C:C)$	3152-3157
$(6)_4(C:C)_5$	2133	$(6)_3(N:C)_2(C:C)_2$	2613	$(6)_2(O:C)(C:C)$	3158-3159
$(6)_4(C:C)_6$	2134	$(6)_3(N:C)_2(C:C)_4$	2614	$(6)(O:C)(N:N)$	3160-3161
$(6)(C:C)$	2135-2136	$(6)_4(N:C)(N:N)$	2615	$(6)_2(O:C)(N:N)$	3162-3164
$(6)_2(C:C)$	2137	Part 18. $(6)(N:C)-$, $(6)(N:C:C)-$, and $(6)(P:P)$ -System		Part 21. $(6)(O:C)-$ and other $(6)(O:C)$ -System	
$(6)_2(C:C)_2$	2138	$(6)(N:C)$	2616-2631	$(6)(O:C)$	3165-3303
$(6)_2(C:C)_3$	2139	$(6)(N:C)(C:C)$	2632-2636	$(6)(O:C)_2$	3304-3321
$(6)_2(C:C)_4$	2140	$(6)_2(N:C)(C:C)$	2637-2641	$(6)(O:C)_3$	3322
$(6)_2(C:C)_5$	2141	$(6)(N:C)(N:N)$	2642-2645	$(6)(O:C)_4$	3323
$(6)_2(C:C)_8$	2142	$(6)_3(N:C:C)$	2646	$(6)_2(O:C)$	3324-3326
$(6)_4(C:C:C)$	2143	$(6)_2(P:P)$	2647	$(6)_2(O:C)_2$	3327-3331
$(6)_4(C:C:C:C)$	2144	Part 19. $(6)(O:C)$ -System		$(6)(O:C)(C:C)$	3332-3364
$(6)_4([C:]_5C)$	2145	$(6)(O:C)$	2648-2836	$(6)(O:C)(C:C)_2$	3365-3369
$(6)_4([C:]_7C)$	2146	$(6)(O:C)_2$	2837-2856	$(6)(O:C)(C:C)_2$	3370-3371
Part 16. $(6)(N:N)-$, $(6)(N:N)-$, and $(6)(N:N:N)$ -System		$(6)_2(O:C)$	2857-2910	$(6)(O:C)_2(C:C)_2$	3372-3373
$(6)(N:N)$	2147-2153	$(6)_2(O:C)_2$	2911-2931	$(6)_2(O:C)(C:C)$	3374-3385
$(6)_2(N:N)$	2154-2351	$(6)_3(O:C)$	2932	$(6)(O:C)(C:C)$	3386-3387
$(6)_3(N:N)$	2352-2363	$(6)_3(O:C)_2$	2933-2934	$(6)(O:C)(N:N)$	3388-3396
$(6)_3(N:N)_2$	2364-2378	$(6)_4(O:C)$	2935-2936	$(6)_2(O:C)_2(N:N)$	3397-3398
$(6)_4(N:N)_2$	2379-2383	$(6)_4(O:C)_2$	2937-2941	$(6)_2(O:C)_2(N:N)$	3399-3400
$(6)_4(N:N)_3$	2384-2388	$(6)_4(O:C)_3$	2942	$(6)_2(O:C)(N:C)(C:C)$	3401
$(6)_5(N:N)_4$	2389-2394	$(6)(O:C)(C:C)$	2943-3011	$(6)_2(O:C)(N:C)(C:C)$	3402-3405
$(6)(N:N)$	2395-2400	$(6)(O:C)(C:C)_2$	3012-3022	$(6)(O:C)(O:C)$	3406-3407
$(6)_2(N:N)$	2401-2404	$(6)(O:C)(C:C)_3$	3023-3027	$(6)(O:C)_2(O:C)$	3408-3409
$(6)_3(N:N)(N:N)$	2405-2407	$(6)(O:C)(C:C)_4$	3028-3031	$(6)_2(O:C)(O:C)$	3410-3411
$(6)_4(N:N)(N:N)_2$	2408	$(6)(O:C)(C:C)_5$	3032-3035		
$(6)(N:N:N)$	2409	$(6)(O:C)(C:C)_6$	3036-3039		
$(6)(N:N:N)_2$	2410	$(6)(O:C)_2(C:C)$	3040-3043		
Part 17. $(6)(N:C)$ -System		$(6)_2(O:C)(C:C)$	3044-3091		
$(6)(N:C)$	2411-2496	$(6)_2(O:C)(C:C)_2$	3092-3101		
$(6)(N:C)_2$	2497-2498	$(6)_2(O:C)(C:C)_3$	3102-3106		
$(6)_2(N:C)$	2499-2526	$(6)_2(O:C)(C:C)_4$	3107-3111		
$(6)_2(N:C)_2$	2527-2561	$(6)_2(O:C)(C:C)_5$	3112-3115		
$(6)_2(N:C)_4$	2562	$(6)_2(O:C)(C:C)_6$	3116-3119		
$(6)_3(N:C)$	2563-2565	$(6)_2(O:C)_2(C:C)$	3120-3122		
$(6)_3(N:C)_2$	2566-2567	$(6)_2(O:C)_2(C:C)_6$	3123		
$(6)_4(N:C)_2$	2568-2580	$(6)_2(O:C)_2(C:C)_8$	3124		
$(6)_6(N:C)_2$	2581	$(6)_3(O:C)(C:C)$	3125		
$(6)(N:C)(C:C)$	2582-2597	$(6)_4(O:C)_4(C:C)$	3126		
$(6)(N:C)(C:C)_2$	2598-2599	$(6)(O:C)(C:C)$	3127-3128		
$(6)_2(N:C)(C:C)$	2600-2606	$(6)(O:C)(N:N)(C:C)$	3129		
$(6)_2(N:C)(C:C)_2$	2607	$(6)_2(O:C)(N:C)(C:C)$	3130		
$(6)_2(N:C)_2(C:C)$	2608	Part 20. $(6)(O:C)$ -System			
$(6)_2(N:C)_2(C:C)_2$	2609-2610	$(6)(O:C)$	3131-3145		
$(6)_2(N:C)_2(C:C)_3$	2611	$(6)(O:C)_2$	3146-3149		
		$(6)_2(O:C)$	3150-3151		

chromophore	no.	chromophore	no.	chromophore	no.
(6) (O:C) (O:C) (C:C)	3412-3441	(6) (O:N) ₂ (O:C)	3876	Part 26. (7:X)- & (X:7:X)- Chromophores	
(6) (O:C) (O:C)	3442	(6) ₂ (O:N) (O:C)	3877-3878	(7:O) ₂	4039-4061
(6) (O:C)	3443-3446	(6) ₃ (O:N) (O:C) (C:C)	3879-3882	(7:O) (O:C)	4062
(6) (O:C)	3447-3448	(6) (O:N) (O:C) (N:N)	3883	(7:O) (O:C) (C:C)	4063
C1		(6) (O:N) (O:C)	3884-3895	(7:O) (6)	4064
Part 22. (6) (O:N)-System		(6) (O:N) ₂ (O:C)	3896-3898	(7:O) (6) (C:C)	4065-4081
(6) (O:N)	3449-3477	(6) (O:N) ₃ (O:C)	3899	(7:O) (6) (O:C) (C:C)	4082-4086
(6) (O:N) ₂	3478	(6) (O:N) (O:C) (C:C)	3900	(7:O) (6) (O:N)	4087-4090
Part 23. (6) (O:N)-System		(6) (O:N) (O:N)	3901	(7:O) (6) (O:N) (O:C) (C:C)	4091-4092
(6) (O:N)	3479-3669	(6) (O:N) (O:N) (O:C)	3902		4093-4094
(6) (O:N) ₂	3670-3719			(O:7:O)	4095
(6) (O:N) ₃	3720-3737	Part 24. Other aromatic Systems with (6)		Part 27. (65:X)-, (66)-, & (X:66:X)-Chromophores	
(6) ₂ (O:N)	3738-3753	(6) (As:O)	3903	(65:C) (6)	4096
(6) ₂ (O:N) ₂	3754-3759	(6) (S:C)	3904	(65:C) (6) (C:C)	4097
(6) ₂ (O:N) ₄	3760-3762	(6) ₂ (S:C)	3905-3911	(66)	4098-4219
(6) (O:N) (C:C)	3763-3801	(6) (N:C:S)	3912	(66) ₂	4220-4230
(6) (O:N) ₂ (C:C)	3802-3806	(6) ₂ (5:O)	3913	(66) (C:C)	4231-4239
(6) (O:N) ₂ (C:C) ₂	3807-3810	Part 25. (X:6:X)- Chromophores		(66) ₂ (C:C)	4240
(6) ₂ (O:N) ₃ (C:C)	3811	(N:6:N)	3914-3919	(66) ₂ (C:C) ₂	4241-4243
(6) ₂ (O:N) (N:N)	3812-3838	(N:6:N)	3920-3922	(66) ₂ (N:N)	4244-4246
(6) ₂ (O:N) ₂ (N:N)	3839-3844	(N:6:N) (6)	3923	(66) ₂ (N:N)	4247-4249
(6) ₃ (O:N) (N:N)	3845	(N:6:N) (6) ₂	3924-3927		
(6) ₃ (O:N) ₂ (N:N) ₂	3846	(N:6:N) (6) ₂ (O:N) ₂	3928	(66) (N:C)	4250-4252
(6) (O:N) (N:C)	3847-3849	(N:6:N:N)	3929-3935	(66) ₂ (N:C) ₂	4253-4259
(6) ₂ (O:N) ₂ (N:C) ₂	3850-3856	(N:6:C) (6)	3936	(66) (O:C)	4260-4285
(6) ₂ (O:N) ₂ (N:C) ₂ (C:C) ₂	3857	(N:6:C) (6) ₂	3937-3942	(66) (O:C) (C:C)	4286-4292
(6) ₂ (O:N) ₂ (N:C) ₂ (C:C) ₄	3858	(N:6:C) (6) ₃	3943-3944	(66) (O:C) (C:C) ₂	4293-4294
(6) (O:N) (N:C) (N:N)	3859	(N:6:C) (6) ₄	3945	(66) (O:C) ₂ (C:C)	4295
(6) (O:N) (O:C)	3860-3875	(O:6:O)	3946-4005	(66) (O:C)	4296-4309
		(O:6:O) ₂	4006		
		(O:6:C)	4007	(66) (O:C) ₂	4310-4313
		(O:6:C) (6)	4008-4009	(66) ₂ (O:C) ₂	4314-4315
		(O:6:C) (6) ₂	4010-4020	(66) (O:C) (C:C)	4316-4326
		(O:6:C) (6) ₂ (O:C)	4021		
		(O:6:N)	4022-4037	(66) (O:N)	4327-4345
		(O:6:N:N)	4038	(66) (O:N)	4346-4352
				(66) (6)	4353-4368
				(66) (6) ₂	4369
				(66) ₂ (6)	4370
				(66) (6) (C:C)	4371
				(66) (6) (C:C) ₂	4372-4373
				(66) (6) (C:C:C)	4374-4375

chromophore	no.	chromophore	no.	chromophore	no.
(66) (6) (N:N)	4376-4413	(665) (O:C)	4599-4600	(635) (O:C)	4890
(66) 2 (6) 2 (N:N) 2	4414	(665:665)	4601-4602	N	
(66) (6) (N:N)	4415-4417	(665:C)	4603-4605	(635) (O:C)	4891
O		(665:C:C:665)	4606	O	
(66) (6) (N:C) 2	4418	(665:[C:] 3C:665)	4607	(635:C) (O:C)	4892
(66) (6) 2 (N:C)	4419-4424	(665:[C:] 5C:665)	4608	O	
(66) 2 (6) 2 (N:C) 2	4425	(665:N)	4609	(635:N)	4893-4895
(66) (6) (O:C)	4426-4434	(665:O)	4610-4614	(635:O)	4896-4899
(66) (6) 3 (O:C)	4435	(665:O) (O:C)	4615	(O:635:O)	4900
(66) (6) (O:C)	4436-4442	N		(64)	4901-5011
O		(665:O) (O:C)	4616-4619	(64) (C:C)	5012-5014
(66) (6) (O:C) 2	4443-4444	O		(64) (N:C)	5015-5021
O		(O:665:O)	4620	(64) (O:C)	5022-5028
(66) (6) 2 (O:C)	4445	(63)	4621-4692	(64) (O:C)	5029-5030
O		(63) (C:C)	4693-4696	N	
(66) (6) (O:C) (C:C)	4446	(63) 4 (C:C)	4697	(64) (O:C)	5031-5038
O		(63) (N:C)	4698	O	
(66) (6) (O:C) (N:N)	4447	(63) (O:C)	4699-4701	(64) (O:C) (O:C)	5039
O		(63) (O:C) (C:C)	4702-4703	O	
(66) 2 (N:6:N)	4448	(63) (O:C)	4704-4705	(64) (O:N)	5040-5041
O O		O		O	
(66) (N:6:N) (6)	4449	(63) (O:C) (O:C)	4706	(64) (N:C:O)	5042-5043
O O		O		(64) (6)	5044-5045
(N:66:N)	4450	(63) (O:C) (O:C)	4707	(64) (6) 2	5046
(O:66:O)	4451-4512	C1		(64) (6) 3	5047-5049
(O:66:O) (C:C)	4513-4519	(63) (O:N)	4708	(64) (6) 4	5050-5051
(O:66:O) (O:C)	4520	O		(64:O)	5052
O		(63) (6)	4709-4720	(O:64:O)	5053-5055
(O:66:O) (6)	4521	(63) (6) 2	4721-4722	(7665)	5056
(O:66:O) (6) (C:C)	4522	(63) (6) 4	4723	(7665) (O:N)	5057
(O:66:O) (66)	4523	(63) (6) 2 (N:C)	4724-4725	O	
(O:66:N)	4524	(63) (6) (O:C)	4726	(763)	5058
(O:66:N:N)	4525-4527	N			
Part 28. Other Chromophores		(63) (66)	4727-4728	Part 31. Other carboaromat-	
consisting of 2 carbo-		(63) (66) 2	4729	ic Chromophores	
aromatic condensed Rings		(O:63:O)	4730-4837	(645)	5059-5062
(75)	4528-4570	(O:63:O) (N:C)	4838-4839	(645) (N:C) 2	5063
(75) (C:C)	4571-4573	(O:63:O) (N)	4840-4845	(645) (O:C) 2	5064
(75) (O:C)	4574-4575	O		N	
(75) (O:C)	4576-4586	(O:63:O) (6)	4846	(645:O)	5065
O		(O:63:C) (6)	4847-4851	(65)	5066-5091
(75) (O:C) 2	4587	(O:63:C) (6) 2	4852-4865	(65) (N:C)	5092
O		Part 30. Chromophores con-		(65) (O:C)	5093-5094
(75) (O:N)	4588-4590	sisting of 4 carboaromat-		(65) (N:C:O)	5095-5096
O		ic condensed Rings		(65) (6) 2	5097
(75) (6)	4591-4594	(765)	4866	(65:O)	5098-5104
(75) (6) (N:N)	4595	(765) (O:C)	4867	(O:65:O)	5105
(75) (6) (O:C)	4596	O		(6452)	5106
(75) (66)	4597	(765) (6)	4868-4869	(655)	5107-5108
Part 29. Chromophores con-		(6655)	4870	(66)	5109-5135
sisting of 3 carboaromat-		(6655) (N:C) 2	4871	(66:O)	5136
ic condensed Rings		(6655) (6) 2	4872	(O:66:O)	5137
(665)	4598	(6655:O)	4873-4874	(6552)	5138
		(635)	4875-4889	(67)	5139-5161
				(68)	5162-5181

chromophore	no.	chromophore	no.	chromophore	no.
(6752)	5182	(N6:N)	5500-5503	(N66) (6) (O:N) ₂	5844-5846
(69)	5183-5189	(N6:O)	5504-5549	(N66:C) (N:C)	5847-5848
(610)	5190-5191	(N6:O) (6)	5550-5551	(N66:C) (6) (N:C)	5849
(6952)	5192	Part 34. (N65)-, (N65:X)-, & (X:N65:X)-Chromophores		(N66:C) (6) (N:C) (C:C)	5850-5851
(611)	5193			(N66:C) (N:6:C)	5852-5853
Part 32. (N5)-Chromophores		(N65)	5552-5575	(N66:C) (N:6:C) (C:C)	5854
(N5)	5194-5201	(N65) (O:C)	5576-5579	(N66:C) (N6)	5855-5857
(N5) (O:C)	5202-5210	(N65) (O:C)	5580	(N66:C) (N66)	5858
(N5) (O:C) ₂	5211-5219	(N65) (O:N)	5581-5582	(N66:C) (N66) (C:C)	5859
(N5) (O:C) (O:C)	5220-5221	(N65) (6) (O:C)	5583	(N66:N) (N66)	5860
(N5) (O:C) ₂ (O:C)	5222	(N65) (O:6:O)	5584-5586	(N66:N) (N66) (N:C)	5861
(N5) (6)	5223-5228	(N65) ₂ (O:6:O)	5587	(N66:O)	5862-5901
(N5) (6) ₂	5229-5230	(N65) (O:66:O)	5588-5592	(N66:O) (O:C)	5902-5903
(N5) (6) ₃	5231	(N65) (O:66:O) ₂	5593	(N66:O) (O:C)	5904-5908
(N5) (6) (O:C)	5232-5237	(N65:C) (6)	5594	(N66:O) (6)	5909-5913
		(N65:C) (N65)	5595	(N66:S)	5914-5916
		(N65:O)	5596	(N66:S) (O:C)	5917
		(O:N65:O)	5597-5607	(N66:S) (6)	5918
		(O:N65:C)	5608-5611	(O:N66:O)	5919
		(O:N65:C) (O:C)	5612		
Part 33. (N6)- and (N6:X)- Chromophores		(O:N65:N65:O)	5613-5649	Part 36. Other N ₁ -aromatic Chromophores	
(N6)	5238-5373	(O:N65:N65:O) (O:C) ₂	5650	(N75)	5920
(N6) ₂	5374-5392	(O:N65:N65:O) (O:N) ₂	5651-5652	(N75) (N:C)	5921-5922
(N6) (C:C)	5393-5406		5653	(N75:O) (N:C)	5923-5924
(N6) ₂ (C:C)	5407	(O:N65:N65:O) (6) ₂	5654	(N75:O) (O:C)	5925-5926
(N6) ₂ (N:N)	5408-5409	(O:N65:N65:O) (6) ₂ (O:C) ₂	5655	(N665)	5927-2949
(N6) (O:C)	5410-5413	(S:N65:N65:S)	5655	(N665) (O:C)	5950
(N6) (O:C) (C:C)	5414-5415			(N665) (O:N)	5951
(N6) (O:C)	5416-5419	Part 35. (N66)-, (N66:X)-, & (X:N66:X)-Chromophores		(N665) (O:N)	5952-5955
(N6) (O:C)	5420-5434	(N66)	5656-5805	(N665) (O:N) ₂	5956-5957
(N6) (O:C) ₂	5435-5436	(N66) ₂	5806-5808	(N665) (O:N) (O:N)	5958
(N6) ₂ (O:C) ₂	5437-5438	(N66) (N:N)	5809-5810	(N665) (6)	5959
(N6) (6)	5439-5442	(N66) (O:C) (N:N:N)	5811	(N665) (6) (O:C)	5960
(N6) (6) ₂	5443-5448	(N66) (O:C)	5812	(N63)	5961-6025
(N6) (6) ₃	5449-5454	(N66) (O:N)	5813-5820	(N63) (N:C)	6026
(N6) (6) (C:C)	5455-5460	(N66) (6)	5821-5826	(N63) (O:N)	6027-6031
(N6) (6) (C:C) ₂	5461-5462	(N66) (6) (C:C)	5827-5832	(N63) (6)	6032-6035
(N6) (6) ₂ (C:C) ₂	5463-5465	(N66) (6) (C:C) ₂	5833-5836	(N63:C) (N:C)	6036
(N6) (6) ₃ (C:C) ₃	5466	(N66) (6) (C:C) ₃	5837	(N63:C) (N6)	6037-6038
(N6) ₂ (6) (C:C) ₂	5467-5470	(N66) (6) (C:C) ₄	5838	(N63:C) (N66)	6039-6040
(N6) (6) (N:N)	5471-5482	(N66) (6) (C:C) ₆	5839	(N63:C) (N63)	6041-6042
(N6) (6) (O:C)	5483	(N66) (6) (O:C)	5840-5841	(N63:C) (N63) (C:C)	6043-6044
(N6) (6) (O:C) (C:C)	5484	(N66) (6) ₂ (O:C)	5842		
(N6) (N5)	5489-5493	(N66) (6) (O:N)	5843		
(N6:C)	5494				
(N6:C) (N:C)	5495				
(N6:C) (6)	5496-5497				
(N6:C) (6) ₂	5498-5499				

chromophore	no.	chromophore	no.	chromophore	no.
(N6 ₃ :O)	6045-6046	(N ₂ 6) (6) (O:N) (N:C)	6394	(N ₂ 665:O)	6788
(N6 ₃ 5)	6047-6049	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 6 ₃)	6789-6822
(N6 ₄)	6050-6063	(N ₂ 6:O)	6395-6513	(N ₂ 6 ₃) (O:C)	6823-6824
(N6 ₄ 5)	6064-6066	(N ₂ 6:O) (6)	6514-6526	$\begin{array}{c} \text{N} \\ \\ \text{O} \end{array}$	
(N6 ₅)	6067	(N ₂ 6:O) (6) ₂	6527	(N ₂ 6 ₃) (O:C)	6825-6826
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$:N6 ₅ :O	6068	(N ₂ 6:O) (6) (N:N)	6528	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	
		(N ₂ 6:O) (6) (N:C)	6529	(N ₂ 6 ₃) (6)	6827-6828
		(N ₂ 6:O) (6) (O:N)	6530-6534	(N ₂ 6 ₃ :O)	6829
		$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 6 ₃ 5)	6830-6841
Part 37. (N ₂ 5)-, (N ₂ 5:X)-,		(N ₂ 6:S)	6535-6564	(N ₂ 6 ₄)	6842-6849
(X:N ₂ 5:X)-, and		(O:N ₂ 6:O)	6565-6600	(N ₂ 6 ₄) (6)	6850
$\begin{array}{c} \text{X} \\ \\ \text{X} \end{array}$:N ₂ 5:X)-Chromophores		(O:N ₂ 6:O) (O:C)	6601-6603	(N ₂ 6 ₄ :O)	6851
(N ₂ 5)	6069-6070	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 6 ₃ 5 ₂)	6852-6853
(N ₂ 5) (O:C)	6071	(O:N ₂ 6:O) (O:N)	6604-6606	(N ₂ 6 ₅)	6854
(N ₂ 5) (6)	6072-6080	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 6 ₆)	6855
(N ₂ 5) (6) ₃	6081	(O:N ₂ 6:O) (6)	6607	(N ₂ 6 ₅ 5 ₂)	6856
(N ₂ 5) (6) ₄	6082	(S:N ₂ 6:O)	6608-6623		
(N ₂ 5) (6) (O:C)	6083	(S:N ₂ 6:S)	6624-6629	Part 40. N ₃ -Aromatic Chromophores	
(N ₂ 5) (6) (O:C)	6084			(N ₃ 5)	6857-6859
$\begin{array}{c} \text{N} \\ \\ \text{O} \end{array}$		Part 39. Other N ₂ -aromatic Chromophores		(N ₃ 5) ₂	6860
(N ₂ 5) (6) (O:C)	6085	(N ₂ 65)	6630-6645	(N ₃ 5) (O:C)	6861
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 65) (N:C)	6646-6648	(N ₃ 5) (6)	6862-6882
(N ₂ 5) (6) (O:N)	6086-6091	(N ₂ 65) (O:C)	6649-6651	(N ₃ 5) (6) ₂	6883-6891
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 5) (6) ₃	6892-6893
(N ₂ 5:C) (6) ₄ (O:C) ₂	6092-6093	(N ₂ 65) (O:N)	6652-6657	(N ₃ 5) (6) ₂ (C:C)	6894
(N ₂ 5:O) (6)	6094-6095	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 5) (N6)	6895-6898
(N ₂ 5:O) (6) (O:N)	6096	(O:N ₂ 65:O)	6658	(N ₃ 5:O) (6)	6899
(O:N ₂ 5:C)	6097-6099	(O:N ₂ 65:O) (O:C)	6659	(N ₃ 6)	6900-6938
(O:N ₂ 5:C) (6)	6100-6105	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 6) (C:C)	6939
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$:N ₂ 5:C) (6)	6106-6123	(N ₂ 66)	6660-6691	(N ₃ 6) (O:C)	6940
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 66) (O:C) ₂	6692	$\begin{array}{c} \text{N} \\ \\ \text{O} \end{array}$	
(S:N ₂ 5:C) (6)	6124-6129	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 6) (O:C)	6941-6942
		(N ₂ 66) (O:N)	6693-6705	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	
Part 38. (N ₂ 6)-, (N ₂ 6:X)-,		$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 6) (6)	6943-6945
& (X:N ₂ 6:X)-Chromophores		(N ₂ 66) (6)	6706-6707	(N ₃ 6:O)	6946
(N ₂ 6)	6130-6361	(N ₂ 66) (6) ₂	6708	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$:N ₃ 6:O) (6) ₃	6947
(N ₂ 6) (N:N:N) ₂	6362-6365	(N ₂ 66) (6) (C:C)	6709	(N ₃ 65)	6948-6979
(N ₂ 6) (N:C)	6366	(N ₂ 66) (6) (C:C) ₂	6710	(N ₃ 65) (O:C)	6980
(N ₂ 6) (N:C)	6367-6369	(N ₂ 66) (6) (C:C) ₃	6711	(N ₃ 65) (O:N)	6981-7002
(N ₂ 6) (O:C)	6370-6372	(N ₂ 66) (6) ₂ (C:C) ₂	6712	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 66) (6) ₂ (C:C) ₄	6713	(N ₃ 65) (6)	7003-7006
(N ₂ 6) (O:C) ₂	6373	(N ₂ 66) (6) ₂ (C:C) ₆	6714	(O:N ₃ 65:O)	7007-7008
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₂ 66:O)	6715-6740	(N ₃ 66:O)	7009-7010
(N ₂ 6) (6)	6374-6384	(N ₂ 66:O) (O:C)	6741-6742	(O:N ₃ 66:O)	7011
(N ₂ 6) (6) (C:C)	6385	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 665)	7012
(N ₂ 6) (6) (C:C) ₂	6386	(N ₂ 66:O) (O:N)	6743-6754	(N ₃ 6 ₃) (O:C)	7013
(N ₂ 6) (6) (C:C) ₃	6387	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	
(N ₂ 6) (6) (C:C) ₄	6388	(N ₂ 66:O) (6) (O:N)	6755-6758	(N ₃ 6 ₃ 5)	7014
(N ₂ 6) (6) (C:C) ₅	6389	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		(N ₃ 6 ₄)	7015
(N ₂ 6) (6) (C:C) ₆	6390	(O:N ₂ 66:O)	6759-6760		
(N ₂ 6) (6) (C:C) ₇	6391	(O:N ₂ 66:N)	6761	Part 41. N ₄ -Aromatic Chromophores	
(N ₂ 6) (6) (N:N)	6392	(N ₂ 75)	6762	(N ₄ 5)	7016-7030
(N ₂ 6) (6) (N:N:N) ₂	6393	(N ₂ 75) (6)	6763-6764		
		(N ₂ 665)	6765-6787		

chromophore	no.	chromophore	no.	chromophore	no.
(N ₄ 5) (N:N)	7031-7035	Part 44. (05)- & (X:05:X)- Chromophores	(05) (6) ₄	7530-7542	
(N ₄ 5) (6)	7036-7045		(05) (6) (N:C) (C:C)	7543-7544	
(N ₄ 5) (6) (O:N) O	7046-7047	(05) (C:C)	7411-7413	7545-7546	
(N ₄ 5:N)	7048-7053	(05) (N:C)	7414-7423	7547	
(N ₄ 65)	7054-7170	(05) ₂ (N:C) ₂	7424-7426	(05) (6) (O:C) (C:C)	7548-7549
(N ₄ 65) (6)	7171-7177	(05) (N:C) (C:C)	7427-7430	(05) (6) ₂ (O:C)	7550-7551
(N ₄ 65:O)	7178-7247	(05) ₂ (N:C) ₂ (C:C) ₂	7431	O	7552
(N ₄ 65:O) (6)	7248	(05) ₂ (N:C) ₂ (C:C) ₄	7432	(05) (6) ₃ (O:C) (O:C)	7553
(O:N ₄ 65:O)	7249-7291	(05) ₂ (N:C) ₂ (C:C) ₆	7433	(05) (O:N ₂ 6) (N:N:N)	7554
O:N ₄ 65:O	7292-7305	(05) (6) (N:C) (C:C)	7434	(O:O ₅ :C) (6) ₂	7555-7562
(N ₄ 66)	7306-7315	(05) (O:C)	7435-7439	(O:O ₅ :O) (6) ₃	7563
(N ₄ 66:O)	7316-7320	(05) (O:C) ₂	7440	(O:O ₅ :O) (66) (6)	7564
(N ₄ 66:O) (O:C)	7321-7328	(05) ₂ (O:C) ₂	7441		
O		(05) (O:C) (C:C)	7442-7444		
(O:N ₄ 66:O)	7329-7336	(05) (O:C) (C:C) ₂	7445-7446		
(O:N ₄ 66:O) (O:C)	7337-7341	(05) (O:C) (C:C) ₃	7447-7448		
O		(05) (O:C) (C:C) ₄	7449		
(O:N ₄ 66:O) (6)	7342	(05) (O:C) (C:C) ₅	7450		
O:N ₄ 66:O	7343-7346	(05) (O:C) (C:C) ₆	7451		
O:N ₄ 66:O (O:C)	7347	(05) ₂ (O:C) (C:C)	7452		
O		(05) ₂ (O:C) (C:C) ₄	7453		
O:N ₄ 66:O (O:C)	7347	(05) ₂ (O:C) (C:C) ₆	7454		
O		(05) ₂ (O:C) ₂ (C:C) ₂	7455		
O:N ₄ 66:O	7348-7352	(05) ₂ (O:C) ₂ (C:C) ₄	7456		
(N ₄ 665)	7353-7356	(05) ₂ (O:C) ₂ (C:C) ₆	7457		
(O:N ₄ 63:O)	7357-7360	(05) (O:C)	7458-7460		
(N ₄ 635)	7361-7362	N			
(N ₄ 635) (6)	7363-7367	(05) (O:C)	7461-7472		
(N ₄ 635) (6) (O:C)	7368	O			
O		(05) (O:C) ₂	7473-7476		
(N ₄ 65)	7369-7370	O			
		(05) (O:C) (C:C)	7477-7484		
		O			
		(05) (O:C) (C:C) ₂	7485-7487		
		O			
		(05) (O:C) (C:C) ₃	7488-7489		
		O			
		(05) (O:C) ₂ (C:C) ₂	7490-7491		
		O			
		(05) (O:N)	7492-7495		
		O			
		(05) (O:N) ₂	7496		
		O			
		(05) (O:N) (C:C)	7497		
		O			
		(05) (O:N) (N:C)	7498-7506		
		O			
		(05) (O:N) (O:C)	7507-7508		
		O			
		(05) (O:N) (O:C)	7509-7511		
		O			
		O			
		(05) (6)	7512		
		(05) (6) ₂	7513-7524		
		(05) (6) ₃	7525-7529		

chromophore	no.	chromophore	no.	chromophore	no.
(O6 ₃ :O) (O:C) O	7775-7776	(ON ₂ 5:O) (6)	7943	(S6) (6) ₂	8074-8075
(O6 ₃ :O) (6)	7777	(ON ₂ 5:O) (6) ₂	7944	(S6) (6) ₃	8076-8086
(O6 ₃ :O) (6) (O:C) O	7778	(ON ₂ 65)	7945	(S6) (6) ₃ (C:C)	8087-8090
(O6 ₃ :65:O) O	7779	(ON ₂ 65:O)	7946	(S6) (6) ₃ (C:C) ₂	8091-8092
(O6 ₃ :N65)	7780	(ON ₂ 65:O) (6)	7947-7948	(S6) (6) ₄ (C:C)	8093
(O6 ₃ :N665)	7781-7782	(ON ₂ 665)	7949-7950	(S6) (6) ₄ (C:C) ₂	8094
(O6 ₃ :N26:O) O	7783	(ON ₃ 65) (6)	7951-7952	(S6:C) (O6) (6) ₄	8095-8096
(O6 ₃ 5)	7784	Part 48. Aromatic Chromo- phores with S Hetero-atom(s)		(S6:C) (S6) (6) ₄	8097-8098
(O6 ₄)	7785			(S6:C) (S6) (6) ₄ (C:C)	8099-8100
(O6 ₄ 5)	7786	(S5)	7953-7976	(S6:O)	8101
(O6 ₅)	7787	(S5) ₂	7977-7978	(S65)	8102-8108
Part 47. Aromatic Chromo- phores with O and N Hetero-atoms		(S5) ₃	7979-7982	(S65) (N:C)	8109
		(S5) ₄	7983-7984	(S65) (O:C) O	8110-8111
(ON5) (O:C)	7788-7791	(S5) ₅	7985	(S65) (6) (N:C)	8112
(ON5) (6)	7792	(S5) (C:C)	7986-7988	(S65) (O:ON5:C) (6)	8113
(ON5) (6) ₂	7793-7794	(S5) (C:C) ₂	7989	(O:S65:O)	8114-8115
(ON5:C) (N66)	7795	(S5) (N:C)	7990	(O:S65:C) (S65)	8116-8126
(O:ON5:C) (6)	7796	(S5) ₂ (N:C) ₂	7991	(O:S65:S65:O)	8127-8131
(O:ON5:C) (6) ₂	7797-7843	(S5) (N:C)	7992	(S66:O) (O:C) O	8132
(O:ON5:C) (6) ₂ (C:C) ₂	7844-7845	(S5) (N:C) (C:C)	7993	(S665)	8133-8138
(O:ON5:C) (6) ₂ (O:N) O	7846-7886	(S5) (O:C)	7994-8002	(S665) (O:C) O	8139-8140
(O:ON5:C) (6) ₂ (O:N) ₂ O	7887-7895	(S5) (O:C) (C:C)	8003	(S665) (O:N) O	8141-8152
(O:ON5:C) (O5) (6)	7896-7897	(S5) ₂ (O:C) (C:C)	8004	(S6 ₃ :N65)	8153
(O:ON5:C) (O5) (6) (C:C)	7898	(S5) (O:C)	8005-8009	(S6 ₃ :N665)	8154
(ON65)	7899-7902	(S5) (O:C) ₂	8010-8021	(S6 ₃ :N26:O) O	8155
(ON65) (O:N) O	7903-7908	(S5) (O:C) (C:C)	8022-8024	(S6 ₃ 5)	8156-8158
(ON65) (6)	7909-7921	(S5) (O:N)	8025-8026	(S ₂ 55)	8159
(ON65) (6) (O:N) O	7922-7927	(S5) (O:N) ₂	8027-8029	Part 49. Aromatic Chromo- phores with S and N Hetero-atoms	
(ON65) (6) (O:N) ₂ O	7928-7929	(S5) (O:N) (C:C)	8030-8031	(SN5)	8160-8183
(ON65:C) (N66)	7930	(S5) (6)	8032-8040	(SN5) (O:C) O	8184-8189
(ON65:C) (ON65) (C:C)	7931-7934	(S5) (6) ₂	8041-8043	(SN5) (O:C) ₂ O	8190-8193
(ON65:C) (ON65) (6) ₂ (C:C)	7935-7936	(S5) (6) ₄	8044	(SN5) ₂ (6) ₄	8194-8195
(ON65:O)	7937	(S5) (6) (N:C)	8045	(SN5) ₂ (6) ₈	8196-8197
(ON66:O)	7938	(S5) ₂ (6) ₂ (N:C) ₂	8046	(SN5) (6) (C:C)	8198-8199
(ON6 ₃ :N)	7939-7940	(S5) (6) (O:C)	8047-8049	(SN5) (6) ₂ (C:C)	8200-8202
(ON6 ₄ :N)	7941	(S5) (6) ₂ (O:C)	8050	(SN5:C) (N:6:C)	8203-8204
(ON ₂ 5:O)	7942	(S5) (6) (O:C) (C:C)	8051-8052	(SN5:C) (N5:C) (6)	8205-8206
		(S5) (6) (O:C) O	8053	(SN5:C) (N6)	8207
		(S5) (N6) ₄	8054	(SN5:C) (N66)	8208-8209
		(S5) (N45)	8055-8060	(SN5:C) (N6 ₃)	8210
		(S5) (O5) (O:C) (C:C)	8061-8062	(SN5:C) (ON65) (C:C)	8211-8214
		(S5) (O:O5:C) (6)	8063	(SN5:C) (SN5) (6) ₄ (C:C)	8215-8217
		(S5) (O:ON5:C)	8064		
		(S5) (O:ON5:C) (6)	8065-8073		

chromophore	no.	chromophore	no.	chromophore	no.
(SN5:N)	8218-8219	(SN65:C) (6) (N:C) (C:C)		(SN63:O)	8374-8377
(SN5:O)	8220-8223		8298-8300	(SN63:C) (N66)	8378-8379
(SN5:O) (6) (C:C)	8224-8225	(SN65:C) (6) (N:C) (C:C) ₂		(SN635:C) (SN635) (C:C)	
(SN5:O) (6) ₂ (C:C)			8301-8303		8380
	8226-8227	(SN65:C) (6) (O:C) (N:C)		(SN25)	8381-8385
(SN5:S)	8228		8304	(SN25) (6)	8386-8387
(SN5:S) (6) (C:C)	8229	(SN65:C) (6) (O:C) (N:C) (C:C)		(SN25:N)	8389-8390
(SN5:S) (6) ₂ (C:C)	8230		8305	(SN25:N) (6)	8391-8393
(O:SN5:C) (6)	8231	(SN65:C) (6) (O:C) (N:C) (C:C) ₂		(SN2665)	8396-8398
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{O} \end{smallmatrix} \text{SN5:C} (6)$	8232-8233		8306	(O:SN2665:C) (6)	8394-8395
$\begin{smallmatrix} \text{N} \\ \vdots \\ \text{O} \end{smallmatrix} \text{SN5:C} (6)$	8234-8235	(SN65:C) (N:6:C)	8307-8308	(SN26655)	8399-8401
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{S} \end{smallmatrix} \text{SN5:C} (6)$	8236-8237	(SN65:C) (N66)	8309-8310	(S ₂ N26655)	8402
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{S} \end{smallmatrix} \text{SN5:C} (66)$	8238	(SN65:C) (N66) (C:C)	8311		
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{S} \end{smallmatrix} \text{SN5:C} (S5)$	8239-8245	(SN65:C) (ON65) (6) (C:C)		Part 50. Other heteroaroma- tic Chromophores	
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{S} \end{smallmatrix} \text{SN5:C} (S65)$	8246		8312-8313		
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{S} \end{smallmatrix} \text{SN5:C} (SN5:C)$	8247-8248	(SN65:C) $\begin{smallmatrix} \text{O} \\ \vdots \\ \text{C} \end{smallmatrix} \text{SN5:S65:O}$		(SO6)	8403
(SN65)	8249-8275		8314-8317	(O:SO655:O)	8404
(SN65) (O:N)	8276-8279	(SN65:C) (SN65)	8318-8319	(Se5) (6) ₂	8405-8407
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{O} \end{smallmatrix}$		(SN65:C) (SN65) (C:C)		(Se5) (6) ₂ (O:C)	8408
(SN65) (6)	8280-8285		8320-8329	(Se665)	8409-8415
(SN65) (6) (C:C)	8286	(SN65:C) (SN65) (C:C) ₂		(Se665) (O:N)	8416-8419
(SN65) (6) (O:N)	8287-8290		8330-8331	$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{O} \end{smallmatrix}$	
$\begin{smallmatrix} \text{O} \\ \vdots \\ \text{O} \end{smallmatrix}$		(SN65:C) (SN65) (C:C) ₃	8332	(SeN5:C) (N66)	8420
(SN65:C) (N:C)	8291	(SN65:N)	8333-8336	(SeN5:C) (SN65) (C:C)	
(SN65:C) (N:C) (C:C)		(SN65:N) (O:C)	8337		8421-8423
	8292-8293	(SN65:N) (6)	8338	(SeN65)	8424
(SN65:C) (N:C) (C:C) ₂	8294	(SN65:O)	8339	(SeN65:C) (N66)	8425
(SN65:C) (6) (N:C)		(SN65:S)	8340-8347	(SeN65:C) (ON65) (6) (C:C)	
	8295-8297	(SN665)	8348-8352		8426-8427
		(SN665) (6)	8353	(SeN65:C) (SeN65) (C:C)	
		(SN665:C) (N66)	8354-8357		8428-8432
		(SN665:C) (SN65) (C:C)		(SeN65:O)	8433-8435
			8358-8360	(SeN65:S)	8436-8438
		(SN665:C) (SN665) (C:C)		(SeN265)	8439
			8361-8366	(SeN265) (6)	8440
		(SN63:N)	8367-8373	(SeN265) (6) ₂	8441
				(SeSN26655)	8442-8443

PART 1. NO CHROMOPHORE

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
C	methane	V	no		W30u	1
C-C	ethane	V	<160		B113	2
B-C	tributylborane	A	205		L37	3
N-C	diethylamine	V	194	3.4	P53	4
O-C	ethyl ether	V	190	3.0	B113	5
O-O-C	methyl peroxide	H	<220		B113	6
S-S	sulfur	C	~ 274	2.9	K45	7
S-C	ethanethiol	A	195	3.1	B113	8
	methyl sulfide	A	210	3.0	F7	9
	thiolane	10	219	2.9	H0u	10
	dimethylthiomethane	A	235	2.7	F7	11
	1,3,5-trithiane; trimethylene trisulfide	A	240	3.2	F7	12
S-S-C	methyl disulfide	L	255	2.6	G22	13
	1,2-dithiolane	A	334	2.2	B31	14
	1,2-dithiane	A	~ 295	2.5	B31	15
	methyl trisulfide	L	<220		G22	16
	ethyl tetrasulfide	A	~ 290	3.4	K45	17
	cyclohexyl hexasulfide	A	~ 325	3.8	K45	18
$S \begin{smallmatrix} N \\ < C \end{smallmatrix}$	dimethyl sulfimide		no		B92j	19
$S \begin{smallmatrix} O \\ < C \end{smallmatrix}$	cyclohexyl methyl sulfoxide		215	3.3	K47c	20
	methyl sulfone		<180		G12	21
	1,3,5-trithiane trisdioxide; trimethylene trisulfone	A	<210	>3.2	C9g	22
Cl-C	chloromethane	V	<160		B113	23
Cl-N	chloramine	W	245	2.6	M31	24
	dichloramine	W	297	2.4	M31	25
	trichloramine	W	340	2.4	M11	26

(no chromophore)

(no chromophore)

system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
Cl-N-C	N-chloro(methylamine)	W	253	2.6	M31	27
	N-chloro(dimethylamine)	W	263	2.5	M31	28
	N,N-dichloro(methylamine)	W	303	2.4	M31	29
Cl-As-C	As,As-dichloro(ethylarsine)	H	241	3.3	M47	30
Cl-O	hypochlorous acid	alk	291	2.5	C96n	31
Cl-S	sulfur dichloride	H	~ 250	3.4	K45	32
Cl-S-S	disulfur dichloride	H	264	3.9	K45	33
Cl-S-O	sulfinyl dichloride	H	262	2.8	K45	34
Br-C	bromomethane	V	204	2.3	D10n	35
		V	260	2.3	B113	36
I-C	iodomethane	A	254	2.6	H16	37
		L	257.5	2.6	H16	38
		V	257	2.4	H16	39
	iodoethane	A	255	2.7	H16	40
	1,2-diiodoethane	A	259.5	3.2	H16	41
	2-iodopropane	A	261	2.8	H16	42
	2-iodo-2-methylpropane	A	268	2.8	H16	43
	diiodomethane	A	247	2.8	H16	44
			291	3.1		
	triiodomethane; iodoform		273.5	2.1	H92	45
			307.5	2.4		
			349	2.4		
I-C-F	1,1,1,3-tetrafluoro-3-iodopropane	L	262.5	2.5	H16	46
	heptafluoro-1-iodopropane	L	271	2.4	H16	47
	tetrafluoro-1,2-diiodoethane	L	282.5	3.0	H16	48
	trifluoroiodomethane	V	267.5	2.2	H16	49
I-C-Cl	3-chloro-1,1,1-trifluoro-3-iodopropane	L	277.5	2.6	H16	50
	trichloroiodomethane	L	324		H16	51
$\text{I-C} \begin{smallmatrix} \text{Cl} \\ < \\ \text{F} \end{smallmatrix}$	1-chlorohexafluoro-1-iodopropane	L	286	2.5	H16	52

(no chromophore)

(no chromophore)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	1,2-dichloro-1,1,2-trifluoro-2-iodo-ethane	L	283	2.5	H16	53
I-C-Br	tribromiodomethane	L	346	2.5	H16	54

PART 2. (C:C)-CHROMOPHORES

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
C:C	ethylene	V	175	4.0	P39	55
C-C:C	2-propen-1-ol; allyl alcohol	H	~ 189	3.9	L33	56
C-C:C-C	3-octene	H	185	3.9	P22	57
	5 α -cholest-2-ene		203	2.8	B72	58
	5 α -cholest-6-ene-3 β ,5-diol		204	3.1	B72	59
	5 α -cholest-11-ene-3 α ,24-diol		203	3.4	B72	60
C ₂ -C:C	2-methylpropene; isobutene		~ 184	4.0	S61	61
C ₂ -C:C-C	2-methyl-2-butene	H	234	2.8	L33	62
	5 α -cholest-4-ene		203	3.6	B72	63
	cholest-5-en-3 β -ol; cholesterol		203	3.5	B72	64
	24-methyl-5 α -cholest-7-ene; ergost-7-ene		207	3.6	B72	65
	methyl 5 α -chol-9(11)-enate		206	3.5	B72	66
	24-methyl-5 α -cholest-14-en-3 β -ol; ergost-14-en-3 β -ol		204	3.6	H72	67
C ₂ -C:C-C ₂	5 α -cholest-8-ene		208	3.7	B72	68
	5 α -cholest-8(14)-en-3 β -ol		208	4.0	B72	69
N-C:C-C	1-piperidino-1-butene	H	228	4.0	B98	70
O-C:C	vinyl ether		204	4.2	H8n	71
	vinyl acetate		no		C63u	72
OC-C:C	2-ethoxypropene		no		S43c	73
S-C:C	methylthioethylene		225	4.2	P40	74
	vinyl sulfide	A	255 275	3.8 3.7	M48	75
	ethyl vinyl sulfone	A	~ 210	2.4	F8	76
S-C:C-C	2,3-dihydrothiophene		no		F10g	77
	2,3-dihydrothiophene 1-dioxide		no		F6	78
S-C:C-C ₂	2,3-dihydro-4-methylthiophene 1-dioxide		no		K47	79

(C:C)

(C:C)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
Cl-C:C	chloroethylene	V	185		P39	80
Cl-C:C-As	As,As-dichloro-(2-chlorovinylarsine); As,As,2-trichlorovinylarsine	H	214	4.0	M47	81
	As-chlorobis(2-chlorovinyl)arsine	H	209	4.1	M47	82
	tris(2-chlorovinyl)arsine	H	207	4.4	M47	83
Cl-C:C-S	2-chlorovinyl sulfide	H	202	3.7	M47	84
Br ₂ -C:C-Br ₂	tetrabromoethylene	M	220		S2g	85
C:C-C:C	1,3-butadiene	H	217	4.3	B98	86
C:C-C:C C	isoprene	H	220	4.4	B98	87
C-C:C-C:C	1,3-pentadiene; piperylene	A	223.5	4.4	B93	88
C:C-C:C C C	2,3-dimethyl-1,3-butadiene	H	226	4.3	S18	89
	1,2-dimethylenecyclobutane	H	237	4.0	W52	90
	1,2-dimethylenecyclopentane	H	<220		W52	91
	1,2-dimethylenecyclohexane	H	220	4.0	B19	92
C-C:C-C:C-C	2,4-hexadiene	A	227	4.4	B98	93
	1,3-cyclopentadiene	H	200 238.5	4.0 3.5	P16	94
	1,3-cyclohexadiene	H	256	3.9	H49	95
	5,6-ethylene-1,3-cyclohexadiene		274	3.5	C95	96
	1,3-cycloheptadiene		248	3.9	P6	97
	1,3-cyclooctadiene		230	3.8	C94	98
C-C:C-C:C C	1(7),2-p-menthadiene; β -phellandrene	A	232	4.3	D10	99
C-C:C-C:C C	1-vinylcyclohexene	A	230	3.9	B93	100
C ₂ -C:C-C:C	allylidencyclohexane	A	236.5	3.9	B93	101
C-C:C-C:C-C C	5-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3-methyl-2,4-pentadien-1-ol	M	238	4.3	I4	102
	4-(1-cyclohexenyl)-3-buten-2-ol	A	233	4.4	C26	103
	1,5-p-menthadiene; α -phellandrene	A	263	3.4	B93	104
	B-norcholesta-3,5-diene	A	245	4.2	F19	105

(C:C)₂(C:C)₂

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	pregna-3,5,20-triene	A	235	4.4	H26	106
	androsta-4,6-diene-3 β ,17 β -diol	A	240	4.4	N6	107
C-C: $\underset{\text{C}}{\underset{\text{C}}{\text{C}}}$ -C:C	3 α -acetoxy-5 β -pregna-16,20-dien-11-one	A	238	4.2	S7	108
	3,8-p-menthadiene	A	235	4.0	B93	109
C ₂ -C:C-C:C-C	1-methyl-4-(1,5-dimethyl-2,4-hexadien-yl)cyclohexene; zingiberene	A	235.5	3.7	B93	110
	cholesta-2,4-diene	A	275	3.8	B60	111
C ₂ -C:C: $\underset{\text{C}}{\text{C}}$ -C:C	2,4-dimethyl-1,3-pentadiene	A	232	3.9	L31	112
	3-methylencholest-4-ene	cH	239	4.2	M66	113
	7-methylencholest-5-en-3 β -ol	A	236	4.3	B25	114
C ₂ -C:C: $\underset{\text{C}}{\text{C}}$ -C:C	1-methyl-2-vinylcyclohexene	A	233	3.9	B93	115
C-C: $\underset{\text{C}}{\underset{\text{C}}{\text{C}}}$ -C:C-C	1,1,3-triethoxy-2-methyl-4-(2,6,6-trimethyl-2-cyclohexenylidene)butane	PE	235		I12	116
	1,1'-bicyclohexene		236		B93	117
	5 α -cholesta-7,14-dien-3-one	A	242	4.0	F30	118
	3-acetoxy-5 α -cholesta-7,9(11)-diene	A	243	4.2	F20	119
C ₂ -C:C-C:C-C-C ₂	2,5-dimethyl-2,4-hexadiene	A	241	4.4	B121n	120
	3,8-dimethyl-1,10-bis(2,2,6-trimethyl-cyclohexylidene)-2,8-decadien-5-yne-4,7-diol	M	250	4.6	I4	121
	1-cyclohexylidene-2-(2-hydroxycyclohexylidene)ethane	A	248	4.5	H8u	122
	3 β -hydroxy-5 β -carda-14,16-dienolide; dianhydrodihydrogitoxigenin		262	3.9	T14	123
	1,3-p-menthadiene; α -terpinene	A	262	3.6	B93	124
	24-methylcholesta-5,7,22-trien-3-ol; ergosterol	A	282	4.1	H82	125
C ₂ -C:C: $\underset{\text{C}}{\text{C}}$ -C:C-C	abietic acid	A	237.5	4.2	K54	126
C ₂ -C:C: $\underset{\text{C}}{\text{C}}$ -C:C-C	3 β ,7,20 β -trihydroxy-5 α -pregna-8(14),15-diene	A	247	3.9	L9	127
	5 β -cholesta-6,8-dien-3 β -ol	E	275	3.7	B36	128

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	24-methyl-5 α -cholesta-6,8(14),22-trien-3 β -ol; ergosta-6,8(14),22-trien-3 β -ol	E	248		W37	129
	24-methyl-3,5-cyclocholesta-6,8(14),22-triene; 3,5-cycloergosta-6,8(14),22-triene	A	261	4.4	F33	130
	6 β -acetoxy-5-methyl-19-nor-5 β -cholesta-9,11-dien-6-one	iP	248	4.4	E13n	131
	(2,6,6-trimethyl-1,3-cyclohexadienyl)-acetaldehyde	PE	267	3.6	I12	132
C ₂ -C:C-C-C-C ₂ C	9(11),12(23)-dehydronor-5 β -choladiene	E	242	4.3	B161	133
C ₂ -C:C-C-C-C C C	5 β -cholesta-8,14-dien-3 β -ol; cholestadienol-B ₁	A	250	4.3	F30	134
	21-acetoxy-17 α -hydroxy-8(14),9(11)-pregnadien-3,20-dione	M	271	3.7	G23g	135
N-C:C-C:C	1-(diethylamino)-1,3-butadiene	H	281	4.4	B98	136
C:C-C-C-C-C O C	3 β ,20-diacetoxy-5 α -pregna-16,20-diene	A	~239	4.2	M44	137
C-C:C-C-C-C ₂ O C	2,4(8)-p-menthadien-3-ol [enol form of pulegone]	H	238	3.6	S7n	138
O-C:C-C-C-C-C ₂ C	2-(2-ethoxyvinyl)-1,3,3-trimethylcyclohexene	PE	222		I12	139
	2-(2-acetoxyvinyl)-1,3,3-trimethylcyclohexene	PE	232		I12	140
OC-C:C-C-C-C-C ₂	5H-6,7,8,8a-tetrahydro-2,5,5,8a-tetramethylchromene	A	286	3.9	B151	141
OC-C:C-C-C-C-C C	3-ethoxy-3,5-androstadien-17-one	A	241	4.3	D32	142
	3-acetoxy-3,5-cholestadiene	C	238	4.2	W13	143
OC-C:C-C-C-C C C	3,8-p-menthadien-3-ol [enol form of isopulegone]	H	236	3.1	S7n	144
OC-C:C-C-C-C-C C C	ethyl 3-acetoxy-11-carbethoxy-3,5-eusantonadienate	A	238-9	4.4	A2	145
	3 α ,7-diacetyl-5 β ,22 α -spirosta-7,9(11)-diene	A	242	4.2	R34	146
SC-C:C-C-C-C-C C	3-(2-hydroxyethylthio)androsta-3,5-dien-17-one	A	268	4.4	R33	147
	3-benzylsulfinylandrosta-3,5-dien-17-one	A	258	4.4	R29	148

(C:C)₂(C:C)₃

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$\text{C}:\underset{\text{Cl}}{\text{C}}:\text{C}:\text{C}$	2-chloro-1,3-butadiene; chloroprene	H	223	4.1	B98	149
$\text{ClC}-\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}-\text{C}$	3-chloroandrosta-3,5-dien-17-one	E	238	4.4	D7	150
$\text{ClC}-\underset{\text{Cl}}{\text{C}}:\underset{\text{Cl}}{\text{C}}:\text{C}-\text{ClC}$	perchloro-1,3-cyclopentadiene	A	323	3.2	Mlg	151
$\text{Cl}_2-\underset{\text{Cl}}{\text{C}}:\underset{\text{Cl}}{\text{C}}:\text{C}-\text{Cl}_2$	perchloro-1,3-butadiene	A	224	4.2	R27	152
$\text{BrC}-\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}-\text{C}$	3-bromocholesta-3,5-dien-17-one	E	238	4.4	D7	153
$\text{C}_2-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	3-acetoxyergosta-6,8(14),9(11)-triene	E	232.5 287.5	4.3 3.8	F29	154
	3,5-cycloergosta-6,8(14),9(11),22-tetraene	iO	244 295	4.2 4.1	N4	155
$\text{C}:\text{C}:\text{C}:\text{C}:\text{C}:\text{C}$	1,3,5-hexatriene	cH	257.5	4.9	W46x	156
$\text{C}-\text{C}:\text{C}:\text{C}:\text{C}:\text{C}:\text{C}-\text{C}$	2,4,6-octatriene	iO	270	4.3	W3	157
	1,3,5-cyclooctatriene		265	3.6	C96	158
$\text{C}-\text{C}:\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}:\text{C}$	1-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3,7-dimethyl-4,6,8-nonatrien-1-yn-3-ol	H	270	4.6	A41	159
$\text{C}-\text{C}:\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}:\text{C}-\text{C}$	8-(1-hydroxy-2,2,6-trimethylcyclohexyl)-6-methyl-3,5,7-octatrien-2-ol	H	274	4.5	A41	160
	3,7,7-trimethyl-1,3,5-cycloheptatriene		268	3.6	C98	161
	22-isospirostatriene	A	306	4.3	R28	162
$\text{C}-\text{C}:\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}-\text{C}$	5 α -cholesta-6,8,11-trien-3-ol		325		Z5	163
$\text{C}-\text{C}:\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\text{C}-\text{C}$	2,3,7,7-tetramethyl-1,3,5-cycloheptatriene		275	3.7	C98	164
$\text{C}_2-\text{C}:\text{C}:\text{C}:\text{C}:\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	4,8-dimethyl-10-(2,6,6-trimethyl-1,3-cyclohexadienyl)-4,6,8-decatrien-1-yn-3-ol	PE	284	4.7	I11	165
$\text{C}_2-\text{C}:\text{C}:\text{C}:\text{C}:\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	cholesta-3,5,7-triene	iP	315	4.2	S28	166
$\text{C}_2-\text{C}:\text{C}:\text{C}:\text{C}:\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\text{C}$	ergocalciferol; calciferol; vitamin D ₂	A	265	4.3	R4n	167
$\text{C}_2-\text{C}:\text{C}:\text{C}:\text{C}:\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	3-methyl-5-(2,6,6-trimethyl-2-cyclohexenylidene)-3-penten-1-ol	M	284	4.4	I4	168
	24-methylcholesta-5,7,14,22-tetraen-3 β -ol; ergosta-5,7,14,22-tetraen-3 β -ol	A	319	4.2	B37	169
	androsta-5,7,9(11)-triene-3 β ,17 β -diol	iO	324	4.0	N5	170
$\text{C}_2-\text{C}:\underset{\text{C}}{\text{C}}:\text{C}:\text{C}:\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	3-hydroxy-24-methyl-9,10-secocholesta-5(10),6,8,22-tetraene	E	280	4.4	K47g	171

(C:C)₃(C:C)₄

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	24-methylergosta-4,6,8(14),22-tetraene	A	283	4.5	F33	172
	3-acetoxycholesta-2,4,6-triene [enol acetate of cholesta-4,6-dien-3-one]	A	302	4.1	D9	173
	2-acetoxy-3,7,7-trimethyl-1,3,5-cycloheptatriene [enol acetate of eucarvone]		207 273	4.1 3.5	C97	174
	2-(ethoxycarbonyloxy)-3,7,7-trimethyl-1,3,5-cycloheptatriene [enol ethoxyformate of eucarvone]		207.5 271	4.1 3.5	C97	175
	1-ethoxy-2-(2,6,6-trimethyl-1,3-cyclohexadienyl)ethylene	PE	284	4.5	I12	176
	1-ethoxy-2-methyl-4-(2,6,6-trimethyl-1-cyclohexenyl)-1,3-butadiene	PE	262.5		I12	177
	1-acetoxy-2-methyl-4-(2,6,6-trimethyl-1-cyclohexenyl)-1,3-butadiene	PE	264	4.2	I12	178
	3-acetoxy-22 α -spirosta-3,5,7-triene	A	314	4.4	Y2	179
	3-(2-hydroxyethylthio)-22 α -spirosta-3,5,7-triene	A	334	4.7	D25	180
	perchloro-1,3,5-hexatriene	A	226	4.4	R27	181
	24-methylcholesta-5,7,9(11),14,22-pentaene; ergosta-5,7,9(11),14,22-pentaene	iO	269 304	4.2 4.3	N4	182
	1,3,5,7-octatetraene	cH	290		W47	183
	4,6,8,10-dodecatetraene-2,3-diol	M	299	4.8	B88	184
	9-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3,7-dimethyl-2,4,6,8-nonatetraenyl acetate	A	230 307	3.8 4.8	A41	185
	6,6-diethoxy-3-methyl-1-(2,6,6-trimethyl-2-cyclohexenylidene)-2,4-hexadiene	PE	318		I12	186
	5-methyl-7-(2,6,6-trimethyl-1-cyclohexenyl)-2,4,6-heptatrien-1-ol		289	4.3	F4	187
	17,17'-dipropionyloxy-3,3'-bisandrosta-3,5-diene	C	313	4.7	B163	188
	cholesta-4,6,8,11-tetraen-3 β -ol	E	355	4.1	W38	189
	1-(4-ethoxy-3-methyl-1,3-butadienyl)-2,6,6-trimethyl-1,3-cyclohexadiene	PE	243 312		I12	190

(C:C) ₄		(C:C) ₉				
system	compound	solv.	λ _{max.}	log ε	ref.	no.
	1-(4-acetoxy-3-methyl-1,3-butadienyl)- 2,6,6-trimethyl-1,3-cyclohexadiene	PE	245 312	4.1 4.2	I12	191
OC-C:C-C-C-C-C-C-C	3-acetoxy-24-methylcholesta- 3,5,7,9(11),22-pentaene [enol acetate of ergosta-4,7,9,22-tetraene]	A	356	4.2	H42	192
C:C-C:C-C:C-C:C-C	cyclooctatetraene	A	280	2.6	M43g	193
C-C:C-C:C-C:C-C-C	methylcyclooctatetraene		280	2.5	C93	194
C-C:C-C:C-C-C-C-C	1,2-dimethylcyclooctatetraene		no		C93	195
Cl-C:C-C:C-C:C-C-C	chlorocyclooctatetraene		no		C91	196
Br-C:C-C:C-C:C-C-C	bromocyclooctatetraene		no		C91	197
(C:C) ₅	1,3,5,7,9-decapentaene	iO	230 334	3.3 5.1	M26	198
(C:C) ₅ -C ₂	2,4,6,8,10-dodecapentaene	M	326 343	4.9 4.9	B88	199
(C:C) ₅ -C ₄	3-methyl-1-(2,6,6-trimethyl-1-cyclo- hexenyl)-1,3,5,7-octatetraene	A	342	4.6	S16n	200
(C:C) ₅ -C ₅	3,7-dimethyl-1-(2,6,6-trimethyl-1-cyclo- hexenyl)-1,3,5,7-octatetraene		348	4.7	S16n	201
(C:C) ₅ -C ₆	retinol; vitamin A	H	325	4.7	A41	202
(C:C) ₆ -C ₂	2,4,6,8,10,12-tetradecahexaene	C	360		D18	203
(C:C) ₆ -C ₄	2,6,11,15-tetramethyl-3,5,7,9,11,13- hexadecahexaenedioic acid; dihydro- crocetin	H	379		K11	204
(C:C) ₆ -C ₅	3,7-dimethyl-9-(2,6,6-trimethyl-2-cyclo- hexenylidene)-1,3,5,7-nonatetraene; anhydrovitamin A ₁	A	370	4.9	I9	205
(C:C) ₆ -C ₆	3,4-dehydroretinol; vitamin A ₂	A	288 352	4.3 4.6	F4	206
(C:C) ₇	1,3,5,7,9,11,13-tetradecaheptaene	iO	390	4.6	M26	207
(C:C) ₇ -C ₆	aurochrome	CD	428		K11	208
(C:C) ₈ -C ₆	flavoxanthin	B	430 458.5		K68	209
	dihydro-β-carotenone	B	436		K66	210
(C:C) ₉ -C ₂	2,4,6,8,10,12,14,16,18-eicosanonaene	B	412	5.3	B88	211

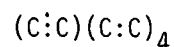
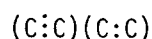
(C:C)₉

(C:C)₁₉

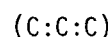
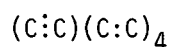
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
(C:C) ₉ -C ₆	5,6-dihydro- α -carotene	B	453.5		K13	212
(C:C) ₉ -C ₇	rubichrome	CD	476		K14	213
(C:C) ₉ -C ₈	8-apo- β -carotenol; β -apo-2-carotenol	A	456		V8	214
	cryptoflavin	B	470		K12	215
(C:C) ₁₀ -C ₈	dihydrobisanhydro- β -carotenone	B	460		K63	216
	α -carotene	CD	475 507	5.0 5.0	02n	217
		PE	475	5.0	M31n	218
(C:C) ₁₁ -C ₉	γ -carotene	H	461	5.2	Z4n	219
(C:C) ₁₁ -C ₁₀	β -carotene	PB	280 465	4.3 5.1	110	220
(C:C) ₁₂ -C ₁₀	4,4'-dehydro- β -carotene; isocarotene	H	308 382 471	4.5 4.4 5.2	Z2	221
	3,4-dehydro- β -carotene	PE	461	5.1	I11	222
(C:C) ₁₃ -C ₈	decapreno- ϵ_1 -carotene	cH	246 321 392 505	4.4 4.8 4.4 5.2	K8	223
(C:C) ₁₃ -C ₁₀	3,4,3',4'-bisdehydro- β -carotene	H	333 404 490	4.3 4.6 5.2	Z1	224
(C:C) ₁₃ -O ₂ C ₃	rhodoviolascins	B	511		K20	225
(C:C) ₁₄ -C ₁₀	anhydroeschscholzxanthin	H	352 499	4.1 5.0	Z1	226
(C:C) ₁₅ -C ₁₀	3,4,3',4'-bisdehydrolycopene	B	531		K11	227
(C:C) ₁₅ -C ₁₂	decapreno- β -carotene	cH	328 405 509	4.5 4.2 5.1	K6	228
(C:C) ₁₉ -C ₁₄	dodecapreno- β -carotene	cH	372 444 547	4.4 4.5 4.9	K7	229

PART 3. (C:C)-CHROMOPHORES AND CUMULENOID CHROMOPHORES

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
C:C	acetylene	V	173	3.8	B113	230
C-C:C	1-octyne	V	185 222.5	3.6 3.7	P21	231
C-C:C-C	2-octyne	V	177.5 222.5	3.8 3.7	P21	232
C:C-C:C	butadiyne	A	234		B86	233
C-C:C-C:C	1,3-pentadiyne	A	236.5	2.6	A33	234
C-C:C-C:C-C	3,5-octadiyne-2,7-diol	A	242.5	2.5	A35	235
C:C-C:C-C:C	hexatriyne	A	284		B86	236
C-C:C-C:C-C-C	2,4,6-octatriyne	A	207 268 286	5.1 2.3 2.3	A35	237
C-C:C-C:C-C:C-C-C	2,4,6,8-decatetrayne	A	234 306 328	5.4 2.3 2.3	A36	238
(C:C) ₅ -C ₂	2,4,6,8,10-dodecapentayne	A	260.5 324.5	5.5 2.4	C84	239
(C:C) ₆ -C ₂	2,4,6,8,10,12-tetradecahexayne	A	284	5.6	C84	240
(C:C) ₇ -C ₂	2,2,17,17-tetramethyl-3,5,7,9,11,13,15-octadecaheptayne	E	310.5 357.5	5.7 2.8	B90	241
C:C-C:C	butenyne; vinylacetylene	V	213	4.0	B113	242
C:C-C:C-C	2-penten-4-yne	A	222	4.0	A34	243
	5-chloro-3-hexen-1-yne	A	226	4.1	H44	244
	5-bromo-3-hexen-1-yne	A	237	4.2	H44	245
C:C-C:C-C-C ₂	3-methyl-3-hexen-5-yne-2-ol	A	224	4.1	J29	246
C:C-C-C-C	3-methyl-3-penten-1-yne	H	219	4.0	B98	247
C:C-C-C-C-C ₂	2-ethynyl-1,3,3-trimethylcyclohexene	H	227	4.1	A41	248
C-C:C-C:C	2,7-octadien-5-yn-4-ol	A	224	4.2	H41	249
C-C:C-C:C-C	3-decen-5-yn-2-ol	A	226	4.2	H38	250
	1-bromo-2-nonen-4-yne	H	242 249	3.9 3.9	B122	251



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	1,6-dibromo-2-hexen-4-yne	H	242	3.9	B122	252
$C-C \equiv C - \underset{\text{C}}{\underset{ }{C}} - C$	7-methyl-2,7-octadien-5-yn-4-ol	A	225	4.2	H41	253
$C-C \equiv C - \underset{\text{C}}{\underset{ }{C}} - C-C$	5-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3-methyl-2-penten-4-yn-1-ol	M	228	4.1	I4	254
	4-(1-cyclohexenyl)-1-methoxy-2-methyl-3-butyne-2-ol	A	227	4.0	A12	255
$C-C \equiv C - \underset{\text{C}}{\underset{ }{C}} - C-C_2$	3-methyl-1-(2,6,6-trimethyl-1-cyclohexenyl)-4,6-octadien-1-yn-3-ol	H	230	4.5	A41	256
$Si-C \equiv C - \underset{\text{C}}{\underset{ }{C}} - C-C$	3-methyl-1-(triethylsilyl)-3-penten-1-yne	H	234	4.2	B98	257
$C:C-C:C-C-C:C$	1,5-hexadien-3-yne		253	4.2	G6n	258
$C-C:C-C:C-C-C:C$	3,7-octadien-5-yn-2-ol	A	258.5	4.2	H41	259
$C-C:C-C:C-C-C:C-C$	3,7-decadien-5-yne-2,9-diol	A	218 265	4.0 4.3	H39	260
$C-C:C-C:C-C-\underset{\text{C}}{\underset{ }{C}}-C$	7-methyl-3,7-octadien-5-yn-2-ol		258.5	4.2	H41	261
$C-C-\underset{\text{C}}{\underset{ }{C}}-C:C-C-C:C-C$	7-methyl-3,7-nonadien-5-yn-2-ol		264	4.2	H36	262
$C-C-\underset{\text{C}}{\underset{ }{C}}-C:C-C-\underset{\text{C}}{\underset{ }{C}}-C-C$	bis(3 β -hydroxyandrosta-5,16-dien-17-yl)-acetylene	A	272	4.2	S53	263
$C_2-C-\underset{\text{C}}{\underset{ }{C}}-C:C-C-\underset{\text{C}}{\underset{ }{C}}-C-C$	di-1-cyclohexenylacetylene	A	252 275	4.8 4.8	B86	264
	3-methyl-5-(2,6,6-trimethyl-1-cyclohexenyl)-2-penten-4-yn-1-ol	PE	271	4.2	I4	265
$C:C-C:C-C-C:C-C$	3,5-octadien-7-yn-2-ol	A	260	4.5	H40	266
$C-C:C-\underset{\text{C}}{\underset{ }{C}}-C:C-C:C-C$	6-methyl-3,5-octadien-7-yn-2-ol	A	260	4.6	C28n	267
	8-(1-hydroxy-2,2,6-trimethylcyclohexyl)-6-methyl-3,5-octadien-7-yn-2-ol		269	4.5	A4	268
$C_2-C-\underset{\text{C}}{\underset{ }{C}}-C:C-C-\underset{\text{C}}{\underset{ }{C}}-C-C:C-C$	6-methyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-3,5-octadien-7-yn-2-ol	H	226 301	4.1 4.3	A41	269
$C:C-C:C-C:C-C-C:C-C$	3,5,7-decatrien-9-yn-2-ol	A	292	4.8	C115	270
$C-C:C-\underset{\text{C}}{\underset{ }{C}}-C:C-C-\underset{\text{C}}{\underset{ }{C}}-C-C$	9-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3,7-dimethyl-2,4,6-nonatrien-8-yn-1-ol	A	302	4.7	A41	271
$(C:C)(C:C)_4-C_2$	3,5,9,11-tetradecatetraen-7-yne-2,13-diol	A	228 323	4.3 4.7	R5	272



system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
$(\text{C}:\text{C})(\text{C}:\text{C})_4\text{-C}_6$	3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexenyl)-2,4,6-nonatrien-8-yn-1-ol; 7,8-dehydrovitamin A	H	252 328	4.3 4.5	A41	273
$(\text{C}:\text{C})(\text{C}:\text{C})_6\text{-C}_8$	3,8-dimethyl-1,10-bis(2,6,6-trimethyl-1-cyclohexenyl)-1,3,7,9-decatetraen-5-yne	M	357	4.7	I4	274
$(\text{C}:\text{C})(\text{C}:\text{C})_{10}\text{-C}_{10}$	15,15'-dehydro- β -carotene	PE	431	5.0	I10	275
$(\text{C}:\text{C})(\text{C}:\text{C})_{11}\text{-C}_{10}$	3,4:15,15'-bisdehydro- β -carotene	PE	439	5.0	I11	276
$(\text{C}:\text{C})(\text{C}:\text{C})_{12}\text{-C}_{10}$	3,4:3',4':15,15'-trisdehydro- β -carotene	PE	449	5.0	I11	277
$\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}$	1-buten-3,5-diyne; vinyl diacetylene	A	262		A19	278
$\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}$	2-hepten-4,6-diyne	A	264	4.1	A33	279
$\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}-\text{C}-\text{C}$	cis-8-decene-4,6-diynoic acid	H	265.5		A19	280
	trans-8-decene-4,6-diynoic acid	H	265.5		A19	281
$\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}-\text{C}:\text{C}-\text{C}-\text{C}$	1,4-di(1-cyclohexenyl)butadiyne	A	237 291	4.5 4.4	B86	282
$(\text{C}:\text{C})_2(\text{C}:\text{C})_4\text{-C}$	1,3,9,11-dodecatetraene-5,7-diyne		307		B91	283
$(\text{C}:\text{C})_2(\text{C}:\text{C})_4\text{-C}_6$	1,8-di(1-cyclohexenyl)-2,7-dimethyl-1,7-octadiene-3,5-diyne	E	313	4.3	B85	284
$(\text{C}:\text{C})_2(\text{C}:\text{C})_6\text{-C}_4$	1,12-di(1-cyclohexenyl)-1,3,9,11-dodecatetraene-5,7-diyne	E	374	4.8	B85	285
$\text{C}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}-\text{C}:\text{C}-\text{C}-\text{C}$	2-nonaene-4,6,8-triynyl acetate	M	245 309	5.0 4.2	B91	286
$\text{C}-\text{C}:\text{C}-[\text{C}:\text{C}]_3-\text{C}:\text{C}-\text{C}$	di(1-cyclohexenyl)hexatriyne	A	254 330	4.8 4.4	B86	287
$\text{C}-[\text{C}:\text{C}]_3-[\text{C}:\text{C}]_2\text{-C}$	3,5-tridecadiene-7,9,11-triynoic acid; isomycomycin	E	267 324	5.0 4.6	C22x	288
$(\text{C}:\text{C})_3(\text{C}:\text{C})_3\text{-C}$	2,10,12-tridecatriene-4,6,8-triynyl acetate	PE	274 342	4.8 4.6	B91	289
$(\text{C}:\text{C})_4(\text{C}:\text{C})_2\text{-C}_2$	1,14-diacetoxy-2,12-tetradecadiene-4,6,8,10-tetrayne	M	275 364	5.0 4.1	B91	290
$(\text{C}:\text{C})_5(\text{C}:\text{C})_2\text{-C}_2$	2,2,17,17-tetramethyl-3,15-octadecadiene-5,7,9,11,13-pentayne	M	297 398	5.2 4.2	B90	291
$(\text{C}:\text{C})_6(\text{C}:\text{C})_2\text{-C}_2$	1,18-diacetoxy-2,16-octadecadiene-4,6,8,10,12,14-hexayne	M	316	5.2	B91	292
$\text{C}:\text{C}:\text{C}$	allene	V	~ 171		S81	293

(C:C:C)

([C:]₉C)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C-C:C:C	1,2-pentadiene; ethylallene	V	177 181 227	4.4 4.4 1.7	J29n	294
C-C:C:C-C	2,3-pentadiene; 1,3-dimethylallene	V	171	4.3	J29n	295
O-C:C:C-N	1-(tert-butylamino)-3-hydroxyallene		287	4.8	W32n	296
C ₂ -C:C:C-C:C:C-C ₂	1,4-bis(2,2,6,6-tetramethylcyclohexylidene)-1,3-butadiene	E	224	4.7	B92	297
C ₂ -C:C:C-C-C:C:C-C ₂ Br Br	2,3-dibromo-1,4-bis(2,2,6,6-tetramethylcyclohexylidene)-1,3-butadiene	E	231	4.7	B92	298
(C:C:C) (C:C) ₂ (C:C) ₂ -C	3,5,7,8-tridecatetraene-10,12-dioic acid; mycomycin		281	4.8	C63	299
C ₂ -C:C:C-C-C ₂	1,2-bis(2,2,6,6-tetramethylcyclohexylidene)ethylene	E	230 271.5	4.0 4.5	B92	300
C ₂ -C:C:C-C:C:C-C ₂	1,4-bis(2,2,6,6-tetramethylcyclohexylidene)butatriene	E	238 339	5.2 4.5	B92	301
C ₂ -[C:] ₉ C-C ₂	1,8-bis(2,2,6,6-tetramethylcyclohexylidene)octaheptaene	PE	325 390 465	5.4 4.2 4.2	B92	302

PART 4. (N:N)-, (N:N)-, AND (N:N:N)-CHROMOPHORE
 $\begin{array}{c} \text{O} \\ | \\ \text{N} \end{array}$

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C-N:N-C	azomethane	W	344	1.0	M20	303
	azopropane	cH	362	1.0	M20	304
C- $\begin{array}{c} \text{N} \\ \\ \text{O} \end{array}$ -N-C	azoxymethane	V	221	3.8	J8	305
	azoxytrifluoromethane	V	211 303	3.9 1.2	J8	306
	azoxycyclohexane	A	223.5	3.9	L2n	307
C-N:N:N	azidoethane	A	222	2.2	S41n	308
			287	1.3		

PART 5. (N:C)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
N:C-C₂	3-iminobutanonitrile; diacetonitrile	H	259	4.3	S32	309
N:C-N₂	guanidine	6.2	no		K39	310
		*1	262	1.3	S32	311
	acetylguanidine	6.1	220	2.8	M18	312
		10.5	229	4.1	M18	313
	nitroguanidine	3.0	265	4.1	L25	314
		7.0	265	4.1	L25	315
		10.0	265	4.1	L25	316
	1-amino-3-nitroguanidine	W	214 267	3.7 4.1	L25	317
N:C-NC	acetamidine	7.0	<220	>1.6	M18	318
		13.0	219	3.0	M18	319
N:C-O₂	ethyl carbonimidate	M	225	1.4	S32	320
N:C-OC	ethyl acetimidate; ethyl α -iminoethyl ether	M	254	1.1	S32	321
N:C-ON	methyl carbamidoimidate; O-methyl isourea	7.5	<220	0.5	M18	322
		12.5	<220	1.4	M18	323
N:C-SN	methyl carbamidoimidothiolate; S-methyl isothioureia	7.1	220	4.6	M18	324
		12.0	238	3.8	M18	325
C-N:C-N	1-isopropyl-4,4-dimethyl-2-imidazoline	A	230	3.4	F16n	326
C-N:C-NC	2-methyl-2-imidazoline	A	221	3.7	F16n	327
		*2	220	3.7	F16n	328
	4,4-dimethyl-2-propyl-2-imidazoline	A	228	3.8	F16n	329
	1-isopropyl-2,4,4-trimethyl-2-imidazoline	A	227	3.8	F16n	330
		*2	226	3.8	F16n	331

*1 aqueous HCl *2 acidified A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-cyanomethyl-1-isopropyl-4,4-dimethyl-2-imidazoline	A	258	4.4	F16n	332
		*1	231	3.8	F16n	333
	2-(ethoxycarbonylmethyl)-1-isopropyl-4,4-dimethyl-2-imidazoline	A	222 271	3.8 4.4	F16n	334
		*1	231	3.9	F16n	335
C-N:C-S ₂	methyl N-methylcarbimidodithiolate; (methylimino)dimethylthiomethane	cH	217	3.9	A13	336
N-N:C	formaldehyde 2,4-dinitrophenylhydrazone	A	225 256 348	4.3 4.1 4.4	B120	337
		C	258 348	4.1 4.4	B120	338
		*2	264 430	4.3	J26	339
N-N:C-C	propionaldehyde 2,4-dinitrophenylhydrazone	A	228 256 357	4.2 4.1 4.3	B120	340
		C	252 361	4.1 4.3	B120	341
		*2	272 438	4.4	J26	342
	(2,6,6-trimethyl-2-cyclohexenyl)formaldehyde semicarbazone; α -cyclocitral semicarbazone	A	232	4.2	H45	343
	(2,6,6-trimethyl-1-cyclohexenyl)acetaldehyde phenylsemicarbazone; β -cyclocitral phenylsemicarbazone	PE	248.5	4.9	I12	344
	acetaldehyde thiosemicarbazone	A	229.5 270	3.8 4.9	E22	345
N-N:C-C ₂	acetone m-nitrophenylhydrazone	M	268	4.4	B84	346
	acetone p-nitrophenylhydrazone	M	250 392	4.1 4.3	B84	347
	acetone 2,4-dinitrophenylhydrazone	A	228 255 362	4.3 4.1 4.3	B120	348

*1 acidified A *2 0.2N NaOH/A+C(9:1)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
		C	258 366	4.1 4.4	B120	349
		*1	431	4.3	J26	350
	cyclopentanone 2,4-dinitrophenyl- hydrazone	A	363	4.4	B120	351
		C	367	4.4	B120	352
	cyclohexanone 2,4-dinitrophenyl- hydrazone	A	363	4.4	B120	353
		C	366	4.4	B120	354
	5 α -cholestan-3-one 2,4-dinitrophenyl- hydrazone	A	370	4.4	C62	355
	hydroxyacetone 2,4-dinitrophenyl- hydrazone	C	255 354	4.0 4.4	R9	356
	1,3-dihydroxyacetone 2,4-dinitrophenyl- hydrazone	C	359	4.3	R9	357
	1,1'-diacetoxyacetone 2,4-dinitro- phenylhydrazone	C	255 351	4.0 4.2	R9	358
	1,1,1-trifluoroacetone 2,4-dinitro- phenylhydrazone		327	3.8	K33	359
	chloroacetone 2,4-dinitrophenyl- hydrazone		340-4	3.9	K33	360
	1,3-dichloroacetone 2,4-dinitrophenyl- hydrazone		337	4.0	K33	361
	bromoacetone 2,4-dinitrophenylhydrazone		344	4.1	K33	362
	acetone N-methyl-2,4-dinitrophenyl- hydrazone	M	375	4.3	B84	363
	5 α -cholestan-3-one N-methyl-2,4-dinitro- phenylhydrazone	C	245	4.0	D32	364
	acetone semicarbazone	A	225.5	4.0	G12	365
	2-ethoxycarbonyl-2-(3-ethoxycarbonyl- 1-methylallyl)cyclopentanone semi- carbazone	A	232.5	4.2	H55	366
	cyclohexanone semicarbazone	A	229.5	4.0	G12	367
	methyl 12 α -bromo-4-methoxy-3,11- disemicarbazono-5 β -cholanoate	M	230	4.1	M22	368

*1 0.2N NaOH/A+C(9:1)

(N:C)

(N:C)₂

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	5-hydroxy-5 α -cholestan-6-one semi-carbazone	A	228	4.1	R10	369
	acetone thiosemicarbazone	A	228.5 271	3.9 4.3	E22	370
	cyclohexanone thiosemicarbazone	A	229.5 272	3.9 4.4	E22	371
O-N:C-C	acetaldehyde oxime		no		L23	372
O-N:C-C ₂	acetone oxime	W	190	3.7	B113	373
	acetone 2,4-dinitrophenyloxime		242	5.1	C106	374
C-C:N-N:C-C	dibutylidenehydrazine; acetaldehyde azine	A	205	4.1	B26	375
C-N:C-C:N-C	bis(cyclohexylimino)ethane; glyoxal biscyclohexylimide	M	217 267	4.3 2.4	C12	376
C-N: $\begin{smallmatrix} \text{C} & \text{C} \\ & \\ \text{C} & \text{C} \end{smallmatrix}$:N-C	2,3-bis(butylimino)butane; diacetyl disbutylimide	A	209	4.3	B26	377
N-N: $\begin{smallmatrix} \text{C} & \text{C} \\ & \\ \text{C} & \text{C} \end{smallmatrix}$:N-N	D-glucose phenylosazone	A	253 394	4.2 4.4	G23x	378
	3 α -acetoxy-12 α -bromo-20,21-bis(2,4-dinitrophenylhydrazono)-11-oxopregnane	B	354 398	4.5 4.4	F35	379
N-N: $\begin{smallmatrix} \text{C} & \text{C} \\ & \\ \text{C} & \text{C} \end{smallmatrix}$:N-N	2,3-dihydrazonobutane; diacetyl dihydrazone; butanedione dihydrazone	A	265	4.2	B27	380
	3 α -hydroxy-11,21-hydrazone-5 β -cholanoic acid		301		W42	381
	2,3-butanedione bis(2,4-dinitrophenylhydrazone)	C	395 440	4.6 4.5	R4	382
	1,2-cyclobutanedione bis(2,4-dinitrophenylhydrazone)	C	352 440 450	4.5 4.4 4.4	R4	383
	1,2-cyclopentanedione bis(2,4-dinitrophenylhydrazone)		352 403 452	4.5 4.4 4.4	R4	384
	1,2-cyclohexanedione bis(2,4-dinitrophenylhydrazone)	C	352	4.5	R4	385
	butanedione disemicarbazone; diacetyl disemicarbazone		281		B87	386
O-N:C-C:N-O	bis(hydroxyimino)ethane; glyoxime	A	236	4.2	B26	387

(N:C)₂

(N:C)(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O-N: $\begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{N-O} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	2,3-bis(hydroxyimino)butane; dimethylglyoxime	A	227	4.3	B26	388
		alk	~ 260		S54	389
	1,2-bis(hydroxyimino)cyclohexane; 1,2-cyclohexanedione dioxime	M	237	4.1	S2g	390
O-N: $\begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{N-N} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	2-hydroxyimino-3-thiosemicarbazonebutane	M	294		S2g	391
N: $\begin{array}{c} \text{C} \text{---} \text{N} \text{---} \text{C} \text{---} \text{N}_2 \\ \\ \text{N} \end{array}$	amidinoguanidine; biguanide	ntr	231	4.0	G1	392
C-N: $\text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{C}$	1-butylimino-2-butene; crotonaldehyde butylimide	A	220	4.4	B26	393
N-N: $\text{C} \text{---} \text{C} \text{---} \text{C}$	acrylaldehyde 2,4-dinitrophenylhydrazone	A	228 241 251 366	4.2 4.2 4.2 4.4	B120	394
		C	256 367	4.0 4.4	B120	395
		*1	459	4.5	J26	396
		A	264.5	4.3	L33	397
	crotonaldehyde p-nitrophenylhydrazone	M	285 400	3.9 4.5	B84	398
		*2	273 523		B84	399
	crotonaldehyde 2,4-dinitrophenylhydrazone	A	244 256 373	4.3 4.3 4.5	B120	400
		C	256 372	4.3 4.5	B120	401
		*1	452	4.5	J26	402
		*2	273 523		B84	403
N-N: $\text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{C}_2$	crotonaldehyde N-methyl-2,4-dinitrophenylhydrazone	M	260 397	4.2 4.3	B84	404
	crotonaldehyde semicarbazone		264.5	4.4	H24	405
	3-methylcrotonaldehyde 2,4-dinitrophenylhydrazone	A	256 381	4.3 4.5	B120	406

*1 0.2N NaOH/A+C(9:1) *2 10% KOH/A

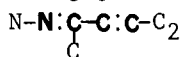
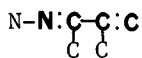
system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
		C	260 382	4.3 4.4	B120	407
	(2,6,6-trimethylcyclohexylidene)- acetaldehyde 2,4-dinitrophenyl- hydrazone	C	260 380	4.2 4.5	H47	408
	3-methylcrotonaldehyde semicarbazone	A	273	4.5	E22	409
	cyclohexylideneacetaldehyde semi- carbazone	A	274	4.5	D19	410
	(2,2,6-trimethylcyclohexylidene)- acetaldehyde phenylsemicarbazone	PE	241 284.5	4.3 4.2	I12	411
	3-methyl-4-(2,6,6-trimethyl-1-cyclo- hexenyl)crotonaldehyde m-nitrophenyl- hydrazone	M	248 314	4.1 4.6	B84	412
	3-methyl-4-(2,6,6-trimethyl-1-cyclo- hexenyl)crotonaldehyde p-nitrophenyl- hydrazone	M	283 406	4.1 4.5	B84	413
N-N: $\underset{\text{C}}{\text{C}}\text{:C-C}$	2-methylcrotonaldehyde 2,4-dinitro- phenylhydrazone; tiglinlaldehyde 2,4- dinitrophenylhydrazone	A	376	4.5	J26	414
		*1	258 458	4.5	J26	415
	2-methyl-4-(2,6,6-trimethyl-1-cyclo- hexenyl)crotonaldehyde N-methyl-2,4- dinitrophenylhydrazone	M	267 404	4.3 4.4	B84	416
	2-methylcrotonaldehyde semicarbazone; tiglinlaldehyde semicarbazone	A	264	4.3	E22	417
	1-p-menthen-7-al semicarbazone; phellandral semicarbazone	A	265	4.4	C85	418
	2-methyl-4-(2,6,6-trimethyl-1-cyclo- hexenyl)crotonaldehyde phenylsemi- carbazone	PE	236 282	4.3 4.5	I12	419
	2-methylcrotonaldehyde thiosemi- carbazone; tiglinlaldehyde thiosemi- carbazone	A	248 299.5	3.9 4.5	E22	420
	2-formyl-1,3,3-trimethylcyclohexene 2,4- dinitrophenylhydrazone; β -cyclocitral 2,4-dinitrophenylhydrazone	A	225 255 387	4.1 4.2 4.4	B120	421
N-N: $\underset{\text{C}}{\text{C}}\text{:C-C}_2$		C	257 389	4.2 4.4	B120	422

*1 0.2N NaOH/A+C(9:1)

(N:C)(C:C)

(N:C)(C:C)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$\begin{array}{c} \text{N}-\text{N}:\text{C}-\text{C}:\text{C}-\text{C} \\ \\ \text{C} \end{array}$	2-formyl-1,3,3-trimethylcyclohexene semicarbazone; β -cyclocitral semicarbazone	A	272	4.4	B156	423
	2-formyl-1,3,3-trimethylcyclohexene phenylsemicarbazone; β -cyclocitral phenylsemicarbazone	A	236.5 280.5	4.3 4.4	B156	424
	4-(2,6,6-trimethyl-2-cyclohexenyl)-3-buten-2-one 2,4-dinitrophenylhydrazone; α -ionone 2,4-dinitrophenylhydrazone	A	223 245 252 377	4.2 4.3 4.3 4.4	B120	425
		C	256 389	4.4 4.4	B120	426
	4-cyclohexyl-2-cyclohexen-1-one 2,4-dinitrophenylhydrazone	C	382	4.4	W27	427
	5 α -cholest-1-en-3-one 2,4-dinitrophenylhydrazone	C	384	4.4	D28	428
	5 α -cholest-1-en-3-one N-methyl-2,4-dinitrophenylhydrazone	C	248 393	4.3 4.3	D28	429
	3-hepten-2-one semicarbazone	A	264.5	4.4	E21	430
	4-cyclohexyl-2-cyclohexen-1-one semicarbazone	A	263.5	4.3	W27	431
	5 β -cholest-1-en-3-one semicarbazone	A	270	4.0	I5	432
	3-hepten-2-one thiosemicarbazone	A	246 301.5	4.0 4.6	E22	433
	3-methyl-3-buten-2-one semicarbazone	A	259.5	4.3	E21	434
	4-methyl-3-penten-2-one 2,4-dinitrophenylhydrazone; mesityl oxide 2,4-dinitrophenylhydrazone	A	224 256 379	4.2 4.2 4.4	B120	435
		C	255 389	4.3 4.4	B120	436



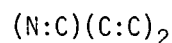
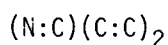
*1 0.2N NaOH/A+C(9:1)

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$\begin{array}{c} \text{N}-\text{N}:\text{C}-\text{C}:\text{C}-\text{C} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	3-methyl-2-cyclohexen-1-one semi-carbazone	A	265.5	4.4	E21	440
	cholest-4-en-3-one semicarbazone	A	270.5	4.4	J33	441
		C	271	4.4	J33	442
	3-methyl-2-cyclohexen-1-one thiosemi-carbazone	A	246.5 302.5	4.0 4.5	E22	443
	3-methyl-3-penten-2-one 2,4-dinitro-phenylhydrazone	A	377	4.4	M27	444
	3 β -acetoxypregna-5,16-dien-20-one 2,4-dinitrophenylhydrazone	C	384	4.4	K27	445
	1-acetylcyclohexene 2,4-dinitrophenylhydrazone	A	228 255 377	4.2 4.2 4.4	B120	446
		C	253 387	4.3 4.4	B120	447
	cholest-4-en-6-one 2,4-dinitrophenylhydrazone	C	377	4.4	R10	448
	2-ethyl-2-cyclohexen-1-one 2,4-dinitrophenylhydrazone	C	385	4.4	J4	449
	3-methyl-3-penten-2-one semicarbazone	A	259.5	4.4	E21	450
	3 α -hydroxy-5 β -pregn-16-en-20-one semi-carbazone	C	267	4.4	D32	451
	1-acetylcyclohexene semicarbazone	A	260.5	4.4	H45	452
	3 β -acetoxycholest-4-en-6-one semi-carbazone	A	258	4.0	R10	453
	2-methyl-2-cyclohexen-1-one semi-carbazone	A	264.5	4.3	E21	454
$\begin{array}{c} \text{N}-\text{N}:\text{C}-\text{C}:\text{C}-\text{C}_2 \\ \quad \\ \text{C} \quad \text{C} \end{array}$	1-acetylcyclohexene thiosemicarbazone	A	247 301	4.0 4.6	E22	455
	3,4-dimethyl-3-penten-2-one 2,4-dinitrophenylhydrazone	A	367	4.3	M27	456
	1-acetyl-2-methylcyclohexene 2,4-dinitrophenylhydrazone	A	365	4.4	W49	457
	1,2,3,4,5,6,7,8-octahydronaphthalen-1-one 2,4-dinitrophenylhydrazone	A	381	4.4	B101	458
		C	259 387.5	4.2 4.4	W27	459

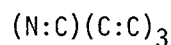
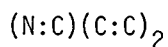
(N:C)(C:C)

(N:C)(C:C)₂

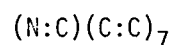
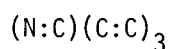
system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	3,4-dimethyl-3-penten-2-one semi-carbazone	A	240	4.4	M27	460
	1-acetyl-2-methylcyclohexene semicarbazone	A	240	4.0	M27	461
	4-isopropyl-2,3-dimethyl-2-cyclopenten-1-one semicarbazone	A	267	4.4	G13	462
	1,2,3,4,5,6,7,8-octahydronaphthalen-1-one semicarbazone	A	267	4.4	B101	463
O-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C	crotonaldehyde oxime	A	229.5	4.2	E2	464
O-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C	2-formyl-5 α -cholest-2-ene oxime	A	233	4.3	P30	465
O-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C ₂	4-methyl-3-penten-2-one oxime; mesityl oxide oxime	W	236.5	4.1	E22	466
	3-methyl-2-cyclopenten-1-one oxime	A	234	4.1	E22	467
	3-methyl-2-cyclohexen-1-one oxime	A	236	4.1	E22	468
	cholest-4-en-3-one oxime	A	240	4.4	E22	469
	3 β -hydroxycholest-5-en-7-one oxime	E	238	4.2	E3	470
O-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C	3-methyl-3-penten-2-one oxime	A	230.5	4.3	E22	471
	1-acetylcyclohexene oxime	A	231	4.1	G12	472
	1(6)-p-menthen-2-one oxime; carvone oxime	A	236	4.2	G12	473
	5-hydroxy-3-carene-2-one oxime; 2-hydroxy-3-carene-5-one oxime		237	4.1	C97	474
N-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C ₂	3 β -acetoxy-5 α -cholesta-8,14-dien-7-one 2,4-dinitrophenylhydrazone	C	393	4.4	D32	475
N-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C ₂	cholesta-1,4-dien-3-one 2,4-dinitrophenylhydrazone	C	400	4.5	D28	476
	cholesta-1,4-dien-3-one semicarbazone	C	302	4.3	I5	477
N-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C ₂	2,6-dimethyl-2,5-heptadien-4-one 2,4-dinitrophenylhydrazone; phorone 2,4-dinitrophenylhydrazone	A	226 258 388	4.3 4.2 4.4	B120	478
		C	256 395	4.1 4.4	B120	479
N-N: $\begin{array}{c} \text{C} \\ \text{C} \end{array}$ -C-C	4-benzoyloxy-2,4,6-trimethyl-2,5-cyclohexadien-1-one 2,4-dinitrophenylhydrazone		231 251		C100	480



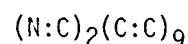
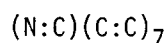
system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
$C_2-N:\underset{\text{S}}{\underset{ }{C}}-C:C-C:C-SN$	3,3'-diethylthiazolinocarboyanine iodide		444		B137	481
$N-N:C-C:C-C:C-C$	2,4-hexadienal p-nitrophenylhydrazone	M	235 291 414	4.3 4.2 4.6	B84	482
	2,4-hexadienal N-methyl-2,4-dinitrophenylhydrazone	M	290 410	4.3 4.4	B84	483
	9-methyl-2,4,8-decatrienal semicarbazone	A	305	4.7	B155	484
$N-N:C-C:C-C:C-C_2$	5,9-dimethyl-2,4,8-decatrienal 2,4-dinitrophenylhydrazone; 9-apolycopenal 2,4-dinitrophenylhydrazone	C	265 308 400	4.7 4.6 4.7	K60	485
	5,9-dimethyl-2,4,8-decatrienal semicarbazone; 9-apolycopenal semicarbazone	A	304.5	4.7	B156	486
$N-N:C-C:C-\underset{\text{C}}{\underset{ }{C}}:C-C$	4-methyl-2,4-hexadienal 2,4-dinitrophenylhydrazone	C	242 260 392	4.4 4.4 4.6	H3	487
	4-methyl-6-(2,6,6-trimethyl-1-cyclohexenyl)-2,4-hexadienal phenylsemicarbazone	PE	234.5 304-6	4.2 4.7	I12	488
$N-N:C-C:C-\underset{\text{C}}{\underset{ }{C}}:C-C$	3-methyl-5-(1-hydroxy-2,2,6-trimethylcyclohexyl)-2,4-pentadienal semicarbazone	M	300	4.6	I4	489
$N-N:C-C:C-\underset{\text{C}}{\underset{ }{C}}-\underset{\text{C}}{\underset{ }{C}}:C-C$	2,6,6-trimethyl-2-cyclohexenylideneacetaldehyde phenylsemicarbazone	PE	236 308.5	4.2 4.6	I12	490
$N-N:C-C:C-\underset{\text{C}}{\underset{ }{C}}:C-C_2$	2-methyl-4-(2,6,6-trimethylcyclohexylidene)-2-butenal phenylsemicarbazone	PE	245.5 314	4.2 4.8	I12	491
		M	313	4.7	I4	492
$N-N:\underset{\text{C}}{\underset{ }{C}}-C:C-C:C-C$	3,5-octadien-2-one semicarbazone	M	290		B87	493
	3,5-octadien-2-one phenylsemicarbazone	M	300		B87	494
$N-N:\underset{\text{C}}{\underset{ }{C}}-C:C-C:C-C_2$	6,10-dimethyl-3,5,9-undecatrien-2-one 2,4-dinitrophenylhydrazone; ψ -ionone 2,4-dinitrophenylhydrazone	A	228 395	4.2 4.5	B120	495
		C	257 309 407	4.3 4.3 4.5	B120	496
	6,10-dimethyl-3,5,9-undecatrien-2-one semicarbazone; ψ -ionone semicarbazone	A	299.5	4.7	B156	497
$N-N:\underset{\text{C}}{\underset{ }{C}}-C:C-\underset{\text{C}}{\underset{ }{C}}:C-C$	4-(3,3-dimethyl-1-cyclohexenyl)-3-buten-2-one 2,4-dinitrophenylhydrazone		285	4.1	S36	498



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$N-N:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-C$	24-methylcholesta-4,6-dien-3-one 2,4-dinitrophenylhydrazone; 4,6-ergostadien-3-one 2,4-dinitrophenylhydrazone	C	400	4.6	B38	499
	cholesta-4,6-dien-3-one N-methyl-2,4-dinitrophenylhydrazone	C	270 310 404	4.2 4.1 4.5	D32	500
	cholesta-4,6-dien-3-one semicarbazone	D	300	4.6	L26	501
	24-methylcholesta-4,6-dien-3-one semicarbazone; 4,6-ergostadien-3-one semicarbazone	A	304	4.5	D7	502
$N-N:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-C_2$	4-(2,6,6-trimethyl-1-cyclohexenyl)-3-buten-2-one p-nitrophenylhydrazone; β -ionone p-nitrophenylhydrazone	M	294 408	4.2 4.5	B84	503
	4-(2,6,6-trimethyl-1-cyclohexenyl)-3-buten-2-one 2,4-dinitrophenylhydrazone; β -ionone 2,4-dinitrophenylhydrazone	A	250 385	4.2 4.4	B120	504
		C	256 388	4.3 4.4	B120	505
	4-(2,6,6-trimethyl-1-cyclohexenyl)-3-buten-2-one N-methyl-2,4-dinitrophenylhydrazone; β -ionone N-methyl-2,4-dinitrophenylhydrazone	M	298 392	4.0 4.3	B84	506
	4-(2,6,6-trimethyl-1-cyclohexenyl)-3-buten-2-one semicarbazone; β -ionone semicarbazone	A	276.5	4.4	B156	507
	cholesta-4,6-dien-3-one oxime	C	280		D7	508
$N-N:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-C_2$	pyrethrin II semicarbazone	A	236 266	4.3 4.4	G13g	509
	cholesta-1,4,6-trien-3-one semicarbazone		~ 309	4.5	I7	510
$N-N:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-C$ $N-N:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-C$	2,4,6-octatrienal p-nitrophenylhydrazone	M	425	4.7	B84	511
	2,4,6-octatrienal 2,4-dinitrophenylhydrazone	A	228 256 313 409	4.3 4.3 4.4 4.7	B120	512
		C	258 325 410	4.3 4.3 4.6	B120	513
	2,4,6-octatrienal N-methyl-2,4-dinitrophenylhydrazone	M	316 ~ 424	4.5 4.5	B84	514



system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
$N-N:C-C:C-C:C-C:C-C_2$	7,11-dimethyl-2,4,6,10-dodecatetraenal semicarbazone; 12-apolycopenal semicarbazone	A	325.5	4.4	B156	515
	7,11-dimethyl-2,4,6,10-dodecatetraenal phenylsemicarbazone; 12-apolycopenal phenylsemicarbazone	A	236.5 332	4.2 4.4	B156	516
$N-N:C-C:C-\underset{\text{C}}{\text{C}}:C-C:C-C_2$	4-methyl-6-(2,6,6-trimethylcyclohexylidene)-2,4-hexadienal phenylsemicarbazone	PE	236 340	4.3 4.9	I12	517
$N-N:C-\underset{\text{C}}{\text{C}}:C-C:C-C-C:C-C_2$	8-methoxy-2,7-dimethyl-2,4,6-octatrienal 2,4-dinitrophenylhydrazone	C	407	4.6	A12	518
	8-methoxy-2,7-dimethyl-2,4,6-octatrienal semicarbazone	A	328	4.7	A12	519
$N-N:C-\underset{\text{C}}{\text{C}}:C-C:C-\underset{\text{C}}{\text{C}}:C-C-C$	2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-2,4,6-octatrienal phenylsemicarbazone	PE	234 332	4.2 4.9	I12	520
$N-N:C-\underset{\text{C}}{\text{C}}:C-C:C-\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:C-C$	2-methyl-4-(2,6,6-trimethyl-2-cyclohexenylidene)crotonaldehyde semicarbazone	PE	335.5	4.7	I12	521
	2-methyl-4-(2,6,6-trimethyl-2-cyclohexenylidene)crotonaldehyde phenylsemicarbazone	PE	234 340	4.2 4.8	I12	522
$N-N:\underset{\text{C}}{\text{C}}:C-C:C-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}:C-C$	5,6-dihydro-6-hydroxy-13-apocarotenone semicarbazone	A	235 325	3.7 4.8	A41	523
$(N:C)(C:C)_4-NC_4$	2,6-dimethyl-8-(2,2,6-trimethylcyclohexylidene)-2,4,6-octatrienal phenylsemicarbazone	PE	238 369	4.5 5.0	I12	524
	4-methyl-6-(2,6,6-trimethyl-2-cyclohexenylidene)-2,4-hexadienal phenylsemicarbazone	PE	366	4.9	I12	525
$(N:C)(C:C)_4-NC_5$	13-apo- β -carotenone semicarbazone	A	345	4.7	A41	526
$(N:C)(C:C)_5-NC_5$	retinal semicarbazone		375	4.9	O7	527
	2,6-dimethyl-8-(2,6,6-trimethyl-2-cyclohexenylidene)-2,4,6-octatrienal phenylsemicarbazone	PE	236.5 393	4.4 5.0	I12	528
$(N:C)(C:C)_6-OC_4$	5,6-dihydro-5,6-dihydroxy-10'-apo- β -carotenal oxime; apo-1-azafrinal oxime	A	423		K11	529
		CD	445		K11	530
$(N:C)(C:C)_7-NC_6$	β -apo-4-carotenal semicarbazone	A	\sim 445		K18	531



system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
		CD	474		K18	532
$(N:C)(C:C)_7-OC_6$	β -apo-4-carotenal oxime	A	409		K18	533
		CD	456		K18	534
$(N:C)(C:C)_8-OC_5$	α -apo-2-carotenal oxime	A	439		K11	535
		CD	469		K11	536
$(N:C)(C:C)_9-OC_7$	β -apo-2-carotenal oxime	A	445		K18	537
		CD	473		K18	538
$(N:C)(C:C)_{11}-OC_9$	β -caroten-4-one oxime	H	456		P10	539
$O-N:C-C:C-C-N-O$	3-carene-2,5-dione dioxime		278	4.4	C97	540
$C-C:C-C:N-N:C-C:C-C$	di-(2-butanylidene)hydrazine; crotonaldehyde azine	A	275	4.6	B76	541
		D	275	4.6	B76	542
$N-N:C-C:C-C:C-C:N-N$	3,5-octadiene-2,7-dione semicarbazone	M	330 345		B87	543
	3,5-octadiene-2,7-dione phenylsemi- carbazone	M	343 355		B87	544
$(N:C)_2(C:C)_4-C_2$	di-2,4-hexadienylidenehydrazine; 2,4-hexadienal azine	A	338	4.9	B26	545
		D	327 342	4.8 4.8	B76	546
$(N:C)_2(C:C)_6-C_2$	di-2,4,6-octatrienylidenehydrazine; 2,4,6-octatrienal azine	A	385	4.9	B26	547
		D	245 304 372	4.1 4.1 4.9	B76	548
$(N:C)_2(C:C)_8-C_2$	di-2,4,6,8-decatetraenylidenehydrazine; 2,4,6,8-decatetraenal azine	*1	343 410	3.6 4.2	B76	549
$(N:C)_2(C:C)_8-O_2N_4$	6,8'-diapolycopenedial oxime; apo-1-bixindialdehyde oxime	A	449 481		K10	550
		CD	480 510		K10	551
$(N:C)_2(C:C)_9-O_2N_4$	6,6'-diapolycopenedial oxime; bixindialdehyde oxime	Py	452 482 514		K69	552

*1 tetrachloroethylene

(N:C)(C:C)

(N:C)(C:C)(C:C)₃

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N-N:C-C:C-C	2-butynal 2,4-dinitrophenylhydrazone; tetrolaldehyde 2,4-dinitrophenyl- hydrazone	C	363	4.4	L32	553
	4,4-dimethyl-2-pentynal semicarbazone		265	4.3	B89	554
N-N:C-C:C-C:C-C	6,6-dimethyl-2,4-heptadiynal 2,4- dinitrophenylhydrazone	M	365	4.5	B90	555
	6,6-dimethyl-2,4-heptadiynal semi- carbazone	M	222 305	4.2 4.5	B90	556
N-N:C-C:C-C:C-C	5-(1-hydroxy-2,2,6-trimethylcyclohexyl)- 3-methyl-2-penten-4-ynal semicarbazone	M	295	4.5	I4	557
S-N:C-C:C-C:C-C	6,6-dimethyl-4-hepten-2-ynal semi- carbazone	M	290	4.5	B90	558
N-N:C-C:C-C:C-C	6-methyl-3,5-octadien-7-yn-2-one semi- carbazone	A	313	4.7	A41	559
N-N:C-C:C-C:C-C-C ₂	3-methyl-5-(2,6,6-trimethyl-1-cyclo- hexenyl)-2-penten-4-ynal 2,4-dinitro- phenylhydrazone	M	265 395	4.2 4.5	I4	560
	3-methyl-5-(2,6,6-trimethyl-1-cyclo- hexenyl)-2-penten-4-ynal semicarbazone	M	240 318	4.2 4.4	I4	561
N-N:C-C:C-C:C-C	8-(1-hydroxy-2,2,6-trimethylcyclohexyl)- 6-methyl-3,5-octadien-7-yn-2-one semi- carbazone	A	232 316	3.6 4.7	A41	562
(N:C)(C:C)(C:C) ₃ -NC ₅	6-methyl-8-(2,6,6-trimethyl-1-cyclo- hexenyl)-3,5-octadien-7-yn-2-one semicarbazone	A	342	4.6	A41	563

PART 6. (N:C)-, (N:C:N)-, AND (N:N:C)-CHROMOPHORES

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
N:C-C	ethanonitrile; acetonitrile	V	160		H57	564
	trichloroethanonitrile; trichloroacetonitrile		305		D11g	565
N:C-N	N-cyanodiallylamine	iO	no		S2g	566
N:C-S	butyl thiocyanate	cH	242		S2g	567
N:C-I	iodine cyanide	A	224	2.3	H18	568
		PE	242	2.2	H18	569
N:C-C:N	ethanodinitrile; oxalonitrile; cyanogen	V	220	0.3	H74	570
N:C-C:C	propenonitrile; acrylonitrile	A	215.5	1.7	R27n	571
N:C-C:C-C	2-butenonitrile; crotononitrile	H	250	0.5	C18	572
	22-cyano-3 β -hydroxy-5,20-bisnor-choladiene	A	226	4.1	H52u	573
N:C-C-C-C ₂	3 β ,21-diacetoxy-20-cyanopregna-5,17(20)-diene	A	224	4.0	H34	574
N:C-C-C-C-C	3-methyl-5-(2,6,6-trimethyl-2-cyclohexenyl)-2,4-pentadienonitrile	A	262.5	4.3	Y3	575
N:C-C-C-C-C-C ₂	3 β -acetoxy-17 β -cyano-5 β -androsta-14,16-diene	A	286	4.3	R48	576
N:C-C-C-C-C-C-C	2,4,6-heptatrienonitrile		261		C1	577
N:C-C-C-C-C-C-C-C ₂	3-methyl-5-(2,6,6-trimethyl-1-cyclohexenyl)-2,4-pentadienonitrile	A	256 300	4.2 4.1	Y3	578
N:C-C-C-C:N	1,2-dicyano-cis-ethylene; maleonitrile	M	220	4.1	W6x	579
N:C-C-C-C-C-C:N	2,5-dicyano-2,4-hexadiene	M	268	4.4	E16	580
C-N:C-N-C	diethylcarbodiimide	H	230 270	2.3 1.4	L3	581
N:N:C	diazomethane	A	347.5	0.7	H8	582
		V	\sim 410	0.5	B128	583
N:N:C-C	diazoethane	V	\sim 450	0.5	B128	584

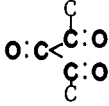
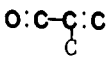
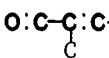
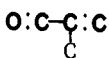
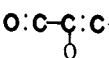
PART 7. (O:C)-CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:C	formaldehyde	A	305	1.2	R14	585
O:C-C	butyraldehyde	A	282.5	1.1	L17	586
		H	290	1.3	L18	587
	monoanhydrodihydrostrophanthidin	A	303	1.4	E9	588
O:C-C ₂	acetone	A	272	1.2	S17	589
		C	277	1.2	S17	590
		H	279	1.2	S17	591
		M	270	1.2	S17	592
		W	264.5	1.2	S17	593
	4-methyl-2-pentanone	A	279	1.4	M12	594
	2,2,4,4-tetramethyl-3-pentanone; tert-butyl ketone	A	295	1.3	R13	595
	bromoacetone	H	215 299	2.6 1.9	M47	596
	acetylcyclopropane	A	271	1.4	M12	597
	acetylcyclobutane	A	281	1.5	M12	598
	acetylcyclopentane	A	279	1.4	M12	599
	acetylcyclohexane	A	281	1.4	M12	600
	dicyclopropyl ketone		<208 266	3.1 1.6	H9	601
	cyclobutanone	H	280	1.3	B56	602
	cyclopentanone	H	299	1.3	B56	603
	3 β ,20 β -diacetoxy-5 α -pregnan-16-one	A	297	1.5	H68	604
	3 α -hydroxy-5 α -androstan-17-one; androsterone	A	294	1.7	D32	605
	cyclohexanone	H	285	1.2	B56	606
	1,3-dioxane-2-spiro-2'-cyclohexanone	M	295	1.6	I4	607
	17 β -hydroxyalloandrostan-3-one	A	281	1.4	D32	608

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	3-acetoxy-5 α -cholestan-6-one		280	1.6	B35	609
	5 α -cholestan-7-one	A	292	1.6	W41	610
	24-methyl-3 β -acetoxy-5 α -cholestan-11-one; 3 β -acetoxyergostan-11-one	A	290	1.7	H58	611
	3 β -acetoxy-12 α ,23-dibromo-5 α -spirostan- 11-one	D	316	2.2	D23	612
	1,3,3-trimethyl-2-norbornane; fenchone	H	293	1.3	D18	613
	cycloheptanone	H	281	1.3	C17	614
	2,2,7,7-tetramethylcyclooctanone	A	293	1.5	L12	615
	2,4-pentanedione; acetylacetone	CCl ₄	274	2.0	V11	616
	2,2,5,5-tetramethyl-1,3-cyclohexanedione	A	207 274	3.0 2.4	M28	617
	ethyl 2,2-dimethylacetoacetate	H	285	1.5	B113	618
O:C-C:O	ethanedial; glyoxal	W	267.5	0.8	M6	619
O:C-C:O C	pyruvaldehyde	W	282.5	1.4	M6	620
	3 α -acetoxy-12 α -bromo-11,20-dioxo-5 β - pregnan-21-al	A	282		F36	621
O:C-C:O C C	2,3-butanedione; diacetyl	A	284 418	1.1 0.0	C73	622
	2,5-dimethyl-3,4-hexanedione	A	285 365	1.7 1.3	L12	623
	2,3-bornanedione; camphorquinone	A	466	1.5	L12	624
		ch	259.5 270 280 477 484	1.3 1.3 1.3 1.6 1.6	A15n	625
	3-[3-(methoxycarbonyl)propionyloxy]- 11,12-dioxo-5 β -cholanoic acid	A	284	2.1	D27	626
	11,12-dioxo-5 β -cholanoic acid	H	\sim 222 279 347	\sim 2.1 1.9 1.7	B33	627
	3,3,6,6-tetramethyl-1,2-cyclohexanedione	A	297.5 380	1.5 1.0	L12	628

(O:C)₂

(O:C)(C:C)

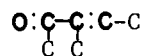
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	3,3,7,7-tetramethyl-1,2-cycloheptane-dione	A	299 337	1.5 1.5	L12	629
	3,3,8,8-tetramethyl-1,2-cyclooctane-dione	A	295.5 343	1.6 1.3	L12	630
	3,3,18,18-tetramethyl-1,2-cycloocta-decanedione	A	286.5 384	1.8 1.3	L12	631
	pentanetrione	iO	457		C3	632
	3,4,5-trioxooxane; 3,5-dioxo- γ -pyrone		254 295	3.6 3.9	B41	633
O:C-C:C	acrylaldehyde	A	208.5 328	4.1 1.1	L33	634
O:C-C:C-C	crotonaldehyde	A	220 322	4.2 1.5	B76	635
	methacrylaldehyde	Hp	214 330	3.9 1.1	S3	636
O:C-C:C-C ₂	3,7-dimethyl-2,6-octadienal; citral	A	238 324	4.1 1.8	B156	637
		H	232.5 336	4.2 1.7	B156	638
	cyclohexylideneacetaldehyde	A	241	4.2	C25	639
	(2,2,6-trimethylcyclohexylidene)-acetaldehyde	M	244	3.9	I4	640
	2-ethyl-2-hexenal	A	228.5 313	4.0 1.4	E22	641
	1-cyclopenten-1-carboxaldehyde		237	4.1	S30n	642
	1-cyclohexene-1-carboxaldehyde		229	4.1	S30n	643
	2-formyl-5 α -cholest-2-ene	A	235	4.1	P30	644
	3 β -acetoxypregna-5,17(20)-dien-21-al	A	244	4.4	H59	645
	2-formyl-1,3,3-trimethylcyclohexene; β -cyclocitral	A	244.5 328	3.9 1.6	B156	646
		H	241 338	4.0 1.6	B156	647
	3 α ,20-dihydroxy-11-oxo-5 β -pregn-17(20)-en-21-al	C	284	4.1	F36	648

(O:C)(C:C)

(O:C)(C:C)

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
	3 α ,20-diacetoxy-11-oxo-5 β -pregn-17(20)-en-21-al	E	246	4.2	F36	649
$\text{O}:\text{C}-\underset{\text{O}}{\underset{ }{\text{C}}}-\text{C}-\text{O}$	2,3-dibenzoyloxyacrylaldehyde	A	254	4.5	C69	650
$\text{O}:\text{C}-\underset{\text{O}}{\underset{ }{\text{C}}}-\text{C}-\text{N}$	2-hydroxy-3-(N-methylanilino)acrylaldehyde	A	236 342	3.7 4.6	C69	651
		C	342	4.6	C69	652
	2-hydroxy-3-(p-chloroanilino)acrylaldehyde	C	346	4.7	C69	653
	2-hydroxy-3-(p-ethoxycarbonylanilino)-acrylaldehyde	A	276 358	3.7 4.7	C69	654
		C	357	4.8	C69	655
	2-benzoyloxy-3-(N-methylanilino)acrylaldehyde	A	231 305	4.3 4.5	C69	656
$\text{O}:\text{C}-\underset{\text{Br}}{\underset{ }{\text{C}}}-\text{C}-\text{N}$	3-anilino-2-bromoacrylaldehyde	C	323	4.6	C69	657
$\text{O}:\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\text{C}:\text{C}$	3-buten-2-one; methyl vinyl ketone	A	219 324	3.6 1.4	E21	658
$\text{O}:\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\text{C}-\text{C}$	3-hepten-2-one	A	228 310	4.0 1.6	E21	659
	2-cyclohexen-1-one	A	225	4.2	B96	660
	5 β -cholest-1-en-3-one; coprost-1-en-3-one	A	230	4.0	I5	661
$\text{O}:\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{C}}{\underset{ }{\text{C}}}:\text{C}$	2-methyl-1-penten-3-one	A	220 319.5	3.9 1.4	E21	662
	1-cyclopropyl-2-methyl-2-propen-1-one		215 305	4.0 1.6	H9	663
$\text{O}:\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\text{C}:\text{C}-\text{C}_2$	4-methyl-3-penten-2-one; mesityl oxide	A	235 313.5	4.1 1.8	E21	664
		E	230 326	4.1 1.6	S17	665
		H	229.5 327	4.1 1.6	S17	666
		M	238 315	4.0 1.7	W49	667
		W	244.5 305	4.0 2.0	S17	668

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	3 β -acetoxy-17-acetonylideneandrost-5-ene	A	242	4.3	P32	669
	cyclohexylideneacetone	A	242	4.0	D18	670
	3-methyl-2-cyclopenten-1-one	M	225	4.3	A4	671
	3-methyl-2-cyclohexen-1-one	A	235 310	4.1 1.7	E21	672
	4a-methyl-2,3,4,4a,5,6,7,8-octahydro- 2,5-naphthalenedione	A	243	4.1	W10	673
	cholest-4-en-3-one	A	241	4.2	F18	674
	6-bromopregn-4-ene-3,20-dione; 6-bromoprogesterone	A	248	4.2	S51	675
	3 β -acetoxycholest-5-en-7-one	A	234	4.2	E3	676
	1,4-epidioxidocholesta-2,5-dien-7-one	A	232	4.1	H46	677
	5-hydroxy-5 α -cholest-7-ene-3,6-dione	A	249	4.2	F18	678
	methyl 3 α -(ethoxycarbonyloxy)-12-oxo- 5 β -chol-9(11)-enoate		239	4.0	F31	679
	3-thujen-2-one; umbellulone		220 265	3.7 3.5	G14	680
	2-pinen-4-one; cedrone	A	240 326	4.0 1.4	E21	681
	3-methyl-3-penten-2-one	A	229.5 310	4.0 1.6	E21	682
	3 α -acetoxy-5 β -pregn-16-ene-11,20-dione	A	238 312	4.1 1.8	R34	683
	1-acetylcyclopentene		239	4.1	S30n	684
	1-acetylcyclohexene		233	4.1	S30n	685
	1-acetyl-1,4-cyclohexadiene	A	245	3.6	E17	686
	1-acetylcycloheptene		236	4.0	S30n	687
	1(6)-p-menthen-2-one; carvone	A	235 318	4.3 1.6	C85	688
	2,6,6-trimethyl-2-cyclohepten-1-one; γ , δ -dihydroeucarvone		239.5	3.9	C98	689
	cholest-5-en-4-one		241	3.9	B164	690
	cholest-4-en-6-one	A	243	3.8	R10	691



(O:C)(C:C)

(O:C)(C:C)

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
$\text{O}:\underset{\text{C}}{\underset{\text{C}}{\text{C}}}-\text{C}-\text{C}_2$	3,4-dimethyl-3-penten-2-one	A	247	3.9	M27	692
	2-isopropylidene-4-methylcyclopentanone	A	254	4.0	F48	693
		H	247	4.0	F48	694
	2-isopropylidene-5-methylcyclohexanone	A	252	3.8	F48	695
		H	242	4.0	F48	696
	2-cyclopentylidenecyclopentanone	A	259	4.0	F48	697
	2-cyclohexylidenecyclohexanone	A	255	3.8	F48	698
	4(8)-p-menthen-3-one; pulegone	A	245 324	3.7 1.6	C85	699
	bicyclohexyliden-2-one	A	255	3.8	F48	700
	1-acetyl-2-methylcyclopentene		253	4.0	S30n	701
	1-acetyl-2-methylcyclohexene		249	3.8	S30n	702
	2-methyl-3-pentyl-2-cyclopenten-1-one; dihydrojasmane	A	237 304	4.1 1.7	G13	703
	1,2,3,4,5,6,7,8-octahydro-1-naphthalen- one	10	237	3.9	B101	704
	2-(1,4a-dimethyl-2-oxo-2,3,4,4a,5,6,7,8- octahydro-7-naphthyl)propionic acid	A	250	4.5	A1	705
	12(23)-dehydronor-5 β -cholesten-22-one	E	234	4.2	B161	706
	3 β -acetoxy-5 α -cholest-8-en-7-one	A	253	4.2	F20	707
	methyl 3 α -acetoxy-11-oxo-5 β -chol-8- enoate	A	254	3.9	H61	708
	3 β -acetoxy-5 α -cholest-8(14)en-15-one	A	259	4.1	W40	709
	3 β -hydroxy-5 α -cholest-8(14)-en-7-one	A	261	3.9	F29	710
$\text{O}:\underset{\text{C}}{\text{C}}-\text{C}-\text{C}-\text{N}$	1-(diethylamino)-1-hexen-3-one	A	215 307	3.1 4.4	B99	711
	1-anilino-1-hexen-3-one	A	227 340	4.0 4.4	B99	712
$\text{O}:\underset{\text{C}}{\text{C}}-\text{C}-\text{C}-\text{NC}$	4-amino-3-penten-2-one	Hp	285	3.8	C110	713
	2,5-dimethyl-4-oxo-1-phenyl-2-pyrroline	A	246.5 324.5	3.4 4.2	D12	714

(O:C)(C:C)

(O:C)(C:C)

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{OC} \\ \\ \text{C} \end{array}$		*1	338	4.0	D12	715
	4-hydroxy-3-penten-2-one [enol form of acetylacetone]	A	273	3.9	M29	716
		C	280	4.0	B48	717
		*3	275	3.3	E8	718
		*4	287	4.3	E8	719
		*5	293	4.3	E8	720
	3-hydroxy-4,4(or 5,5)-dimethyl-2-cyclo- penten-1-one [enol form of	*3	244	4.3	E8	721
	4,4-dimethyl-1,3-cyclopentanedione]	*4	254	4.3	E8	722
		*5	259	4.4	E8	723
	3-hydroxy-5,5-dimethyl-2-cyclohexen- 1-one [enol form of 5,5-dimethyl- 1,3-cyclohexanedione]; dimedone	A	255	4.3	M28	724
		*3	259	4.2	E8	725
		*4	277	4.3	E8	726
		*5	282	4.4	E8	727
	4-methoxy-3-penten-2-one [enol methyl ether of acetylacetone]	CCl ₄	250		V11	728
	3-methoxy-5,5-dimethyl-2-cyclohexen- 1-one [enol methyl ether of 5,5-dimethyl-1,3-cyclohexanedione]	A	250	4.3	M28	729
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{O} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	3-hydroxymethylene-2-bornanone; hydroxymethylenecamphor	A	264.5	4.1	G10	730
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{OC} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	2-acetyl-1-cyclohexen-1-ol [enol form of 2-acetylcyclohexanone]	*3	295	3.5	E8	731
		*4	308	4.1	E8	732
		*5	310	4.2	E8	753
	3-hydroxy-2,4-dimethyl-2-cyclobuten- 1-one [enol form of 2,4-dimethyl-1,3- cyclobutanedione]	*3	245	4.1	E8	734
		*4	261	4.1	E8	735
		*5	256	4.2	E8	736
	2-ethyl-3-hydroxy-4(or 5)-propyl-2-cyclo- penten-1-one [enol form of 2-ethyl- 4-propyl-1,3-cyclopentanedione]	A	252	4.2	G3	737

*1 0.01N NaOH/W *2 0.002M NaOH/M *3 conc. H₂SO₄ *4 dil. H₂SO₄ *5 5N NaOH

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
$\begin{array}{c} \text{O} \cdot \text{C} - \text{C} : \text{C} - \text{C} \\ \quad \\ \text{C} \quad \text{O} \end{array}$	3-hydroxy-2-(1-methoxycarbonyl-1-methylethyl)-4,4(or 5,5)-dimethyl-2-cyclopenten-1-one [enol form of 2-(1-methoxycarbonyl-1-methylethyl)-4,4-dimethyl-1,3-cyclopentadiene]	*1	250	4.2	E8	738
		*2	265	4.3	E8	739
		*3	268	4.4	E8	740
	3-hydroxy-2,5,5-trimethyl-2-cyclohexen-1-one [enol form of 2,5,5-trimethyl-1,3-cyclohexanedione]	A	264	4.1	M28	741
		*1	268	4.1	E8	742
		*2	291	4.2	E8	743
		*3	295	4.3	E8	744
	3-ethoxy-2,5,5-trimethyl-2-cyclohexen-1-one [enol ethyl ether of 2,5,5-trimethyl-1,3-cyclohexenedione]	A	268	4.3	M28	745
	5-hydroxy-2,2-diphenyl-4-cyclopenten-1-one	*4	305		G3	746
	3-hydroxy-5 α -cholest-3-en-2-one	E	272	3.9	S73	747
$\begin{array}{c} \text{O} \cdot \text{C} - \text{C} : \text{C} - \text{C}_2 \\ \quad \\ \text{C} \quad \text{O} \end{array}$	2-hydroxy-5 α -cholest-1-en-3-one	E	270	3.9	S73	748
	3-acetoxy-5 α -cholest-3-en-2-one	E	248	3.9	S73	749
	2-acetoxy-5 α -cholest-1-en-3-one	E	237	3.9	S73	750
	2-hydroxy-3-methyl-2-cyclohexen-1-one [enol form of 3-methyl-1,2-cyclohexanedione]	A	268.5	3.9	F45	751
		W	269	3.9	F45	752
		*5	312	3.9	F45	753
	2-hydroxy-1-p-menthen-3-one; diosphenol	A	274	4.0	G10	754
	4-hydroxycholest-4-en-3-one [enol form of 3,4-cholestanedione]	A	278	4.1	S71	755
		C	280	4.0	B162	756
	3 β ,11-dihydroxy-22-isoallospirost-9(11)-en-12-one [enol form of 3 β -hydroxy-22-isospirostane-11,12-dione]	A	282	3.3	D27	757
	4-methoxycholest-4-en-3-one [enol methyl ether of 5 α -cholestane-3,4-dione]	A	263	3.7	S71	758
	2-acetoxy-1-p-menthen-3-one; diosphenol acetate	A	240		G10	759
	4-acetoxycholest-4-en-3-one [enol acetate of 5 α -cholestane-3,4-dione]	C	247	4.2	F33n	760

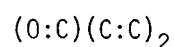
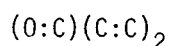
*1 conc. H₂SO₄ *2 dil. H₂SO₄ *3 5N NaOH *4 KOH/W *5 0.1N NaOH/W

(O:C)(C:C)

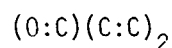
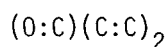
(O:C)(C:C)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	3 β ,11-diacetoxy-22-isoallospirost-9(11)-en-12-one [enol acetate of 3 β -acetoxy-22-isospirostane-11,12-dione]	A	244	4.0	D27	761
$\text{O}:\underset{\text{C}}{\text{C}}-\text{C}:\text{C}-\text{S}$	1-ethylthio-1-penten-3-one	H	292	4.2	B98	762
$\text{O}:\underset{\text{C}}{\text{C}}-\text{C}:\text{C}-\text{Cl}$	1-chloro-1-buten-3-one	A	228	4.0	B98	763
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{Cl}$	1,2-dichloro-1-penten-3-one	M	248	3.8	B98	764
$\text{O}:\underset{\text{C}}{\text{C}}-\text{C}:\text{C}-\text{Br}$	1-bromo-1-penten-3-one	H	237	3.7	B98	765
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}$	2-bromo-5 β -cholest-1-en-3-one	M	256	3.9	D26	766
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}_2$	4-bromocholest-4-en-3-one	E	250	4.2	D7	767
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{Br}$	1,2-dibromo-1-penten-3-one	H	259	3.8	B98	768
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{OC}$	2-bromo-3-hydroxy-5,5-dimethyl-2-cyclohexen-1-one [enol form of 2-bromo 5,5-dimethyl-1,3-cyclohexanedione]	*1	276	4.1	E8	769
		*2	306	4.2	E8	770
		*3	293	4.3	E8	771
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\underset{\text{C}}{\text{C}}-\text{C}-\text{C}_2$	3 β -acetoxy-5 α -cholesta-8,14-dien-7-one	A	224 298	4.2 3.7	F29	772
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}_2$	17 α -hydroxyandrosta-1,4-dien-3-one	A	244	4.2	W26	773
		E	236	4.2	I8	774
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}_2$	2,6-dimethyl-2,5-heptadien-4-one; phorone	H	259 375	4.4 1.9	S17	775
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}_2$	dl- α -santonin	A	242	4.0	A2	776
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{C}_2$	3 β -acetoxylanosta-5,8-dien-7-one	A	249	4.1	B39	777
$\text{O}:\underset{\text{C}}{\text{C}}-\underset{\text{C}}{\text{C}}:\text{C}-\text{N}$	1-(diethylamino)-1,4-hexadien-3-one	A	242.5 339	4.0 4.4	B99	778
	1-anilino-1,4-hexadien-3-one	A	240 377	4.2 4.5	B99	779

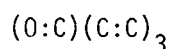
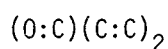
*1 conc. H₂SO₄ *2 dil. H₂SO₄ *3 5N NaOH



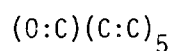
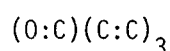
system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	N,N'-bis(3-oxo-1,4-hexadienyl)-p-phenylenediamine	A	229 245 413	4.1 4.1 4.7	B99	780
	1-(p-nitroanilino)-1,4-hexadien-3-one	A	229 244 394	4.1 4.1 4.6	B99	781
$\begin{array}{c} \text{C} \\ \diagup \\ \text{O}:\text{C}:\text{C}-\text{O} \\ \diagdown \\ \text{C}:\text{C}-\text{C}_2 \end{array}$	2-(hydroxymethylene)cholest-4-en-3-one		250 310	4.1 3.8	P18	782
$\begin{array}{c} \text{O} \\ \diagup \\ \text{O}:\text{C}:\text{C}-\text{C} \\ \diagdown \\ \text{C}:\text{C}-\text{C} \\ \diagup \\ \text{C} \end{array}$	3-hydroxycholesta-2,5-dien-4-one; diosterol II	A	265 287	3.7 4.4	F23	783
	3-acetoxcholesta-2,5-dien-4-one; diosterol II acetate	A	245	4.2	F23	784
	3-benzoyloxycholesta-2,5-dien-4-one; diosterol II benzoate	A	234	4.3	F23	785
$\begin{array}{c} \text{Br} \\ \diagup \\ \text{O}:\text{C}:\text{C}-\text{C} \\ \diagdown \\ \text{C}:\text{C}-\text{C}_2 \end{array}$	2-bromo-17 α -(cyclohexanecarbonyloxy)- androsta-1,4-dien-3-one	A	255	4.2	D29	786
$\begin{array}{c} \text{Br} \\ \diagup \\ \text{O}:\text{C}:\text{C}-\text{C}_2 \\ \diagdown \\ \text{C}:\text{C}-\text{C} \end{array}$	4,6-dibromocholesta-1,4-dien-3-one	A	254	4.2	I3	787
$\begin{array}{c} \text{Br} \\ \diagup \\ \text{O}:\text{C}:\text{C}-\text{C}_2 \\ \diagdown \\ \text{Br}:\text{C}:\text{C}-\text{C} \end{array}$	2,4,6-tribromocholesta-1,4-dien-3-one	A	274	4.0	I3	788
$\text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}$	2,4-pentadienal	A	258	4.5	B5	789
$\text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}$	2,4-hexadienal; sorbaldehyde	A	271	4.4	B76	790
		D	270	4.4	B76	791
		H	263	4.4	B76	792
$\text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}_2$	5,9-dimethyl-2,4,8-decatreinal; citrylideneacetaldehyde	A	290	4.2	B156	793
		H	280	4.2	B156	794
	4-cyclohexylidenecrotonaldehyde	A	290		A12	795
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C} \\ \diagup \\ \text{C} \end{array}$	4-methyl-6-(2,6,6-trimethyl-1,3-cyclo- hexadienyl)-2,4-hexadienal	PE	274	4.5	I12	796
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C} \\ \diagup \\ \text{C} \end{array}$	5-(1-hydroxy-2,2,6-trimethylcyclohexyl)- 3-methyl-2,4-pentadienal	M	285	4.3	I4	797
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C}_2 \\ \diagup \\ \text{C} \end{array}$	2-methyl-4-(2,2,6-trimethylcyclo- hexylidene)crotonaldehyde	M	296	4.5	I4	798
		PE	288	4.5	I12	799
$\begin{array}{c} \text{O}:\text{C}-\text{C}:\text{C}-\text{C}:\text{C}-\text{C} \\ \diagup \\ \text{C} \end{array}$	3,5-heptadien-2-one		272	4.3	B151	800



system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	6-acetoxy-6-methyl-2,4-cyclohexadien-1-one		292	3.6	W12	801
	2,4-cycloheptadien-1-one		292	3.7	V4	802
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C_2$	6,10-dimethyl-3,5,9-undecatrien-2-one; ψ -ionone	A	291	4.3	B156	803
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C$	cholesta-3,5-dien-2-one	H	282	4.4	B156	804
			290	4.1	R46	805
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C$	4-methyl-6-(2,6,6-trimethyl-2-cyclohexenyl)-3,5-hexadien-2-one	A	285	4.2	Y4	806
	cholesta-4,6-dien-3-one	M	285	4.4	L26	807
	cholesta-3,5-dien-7-one	A	277	4.4	J2	808
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C$	6-allyl-2,6-dimethyl-2,4-cyclohexadien-1-one	cH	213 303	3.9 3.8	C114	809
	cholesta-2,4-dien-6-one	A	314	3.5	R10	810
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C_2$	4-(2,6,6-trimethyl-1-cyclohexenyl)-3-buten-2-one; β -ionone	A	293.5	3.9	B15	811
		H	280.5	3.9	B15	812
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C$	methyl 3 α -hydroxy-12-oxo-5 β -chola-7,9(11)-dienoate	A	238 290	3.6 4.1	F32	813
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C_2$	3 β -hydroxypregna-5,14,16-trien-20-one		307	4.2	P29	814
	2-(cyclohexylideneethylidene)cyclohexanone	E	297	4.4	F48	815
	2-(cyclohexylideneethylidene)-4-methoxycyclohexanone	A	306.5	4.4	F48	816
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C$	2,3-dihydroxy-4b-methoxy-8,10a-dimethyl-1,2,3,4,4a,4b,5,6,7,10a-decahydro-7-phenanthrenone	A	289	4.4	K43	817
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-C_2$	5 β -androsta-8,14-diene-3,16-dione	A	289	4.4	W28	818
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-N$	6-(diethylamino)-3,5-hexadien-2-one		277 378	3.5 4.7	B99	819
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{N}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C$	4-(diethylamino)-3,5-hexadien-2-one	A	308	4.3	B99	820
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{N}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C$	4-(diethylamino)-5-methyl-3,5-hexadien-2-one	A	310 315	4.5 4.5	B99	821
$O:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{C}:C-OC$	3-hydroxycholesta-3,5-dien-7-one	A	320	4.4	B34	822



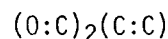
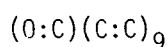
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
			393	4.8	B34	823
	3-methoxycholesta-3,5-dien-7-one	A	308	4.4	B34	824
	3-acetoxycholesta-3,5-dien-7-one	A	283	4.4	B34	825
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{O}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	4-hydroxycholesta-4,6-dien-3-one; diosterol I	A	313.5	3.7	F23	826
	4-benzoyloxycholesta-4,6-dien-3-one; diosterol I benzoate	A	232 287	4.2 4.4	F23	827
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	6-bromocholesta-3,5-dien-7-one	A	280	4.3	J2	828
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\text{C}}$	4,6-dibromocholesta-4,6-dien-3-one	C	296	4.3	J2	829
	4,6-dibromocholesta-3,5-dien-6-one	A	303	4.0	J2	830
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\text{BrC}$	4,6,7-tribromocholesta-4,6-dien-3-one	C	313	4.2	J2	831
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	22-spirosta-1,4,6-trien-3-one	A	222 296	4.1 4.2	Y2	832
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	3-acetoxy-4,4-dimethylcholesta-5,8,11- trien-7-one; 3-acetoxylanosta-5,8,11- trien-7-one	A	258 326	3.9 3.9	B39	833
$O:\overset{\text{Br}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	2,4-dibromocholesta-1,4,6-trien-3-one	A	326	4.1	I3	834
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	3-acetoxy-24-methyl-5-cholesta-6,8,14- trien-11-one; 3-acetoxyergosta- 6,8,14-trien-11-one	A	233 326	4.2 3.9	F29	835
$O:\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	2,4,6-octatrienal	A	315	4.6	B76	836
		D	312	4.6	B76	837
		M	306	4.6	B76	838
$O:\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\text{C}_2$	7,11-dimethyl-2,4,6,10-dodecatetraenal	A	314	4.1	B156	839
		H	307	4.1	B156	840
$O:\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\text{C}_2$	4-methyl-6-(2,6,6-trimethylcyclo- hexylidene)-2,4-hexadienal	PE	323	4.7	I12	841
$O:\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\text{C}_2$	8-methoxy-2,7-dimethyl-2,4,6-octatrienal	A	323	4.5	A12	842
$O:\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}-\overset{\text{C}}{\text{C}}$	2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclo- hexenyl)-2,4,6-octatrienal	PE	313	4.8	I10	843



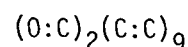
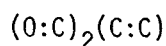
system	compound	solv.	$\lambda_{max.}$	$\log \epsilon$	ref.	no.
$O:C-C-C-C-C-C-C_2$ 	3-methyl-5-(2,6,6-trimethyl-1-cyclohexenyl)-2,4-pentadienal	iO	265 315	4.1 4.2	W10g	844
$O:C-C-C-C-C-C-C$ 	2-methyl-4-(2,6,6-trimethyl-2-cyclohexenylidene)-2-butenal	PE	318	4.5	I12	845
$O:C-C-C-C-C-C-C$ 	6-methyl-3,5,7-octatrien-2-one	A	311	4.5	A41	846
		H	303	4.5	A4	847
$O:C-C-C-C-C-C-C$ 	6-methyl-8-(2,6,6-trimethyl-2-cyclohexenyl)-3,5,7-octatrien-2-one	A	329	4.5	K15	848
$O:C-C-C-C-C-C-C$ 	cholesta-1,3,5-trien-7-one	A	230 350	4.2 3.9	H46	849
$O:C-C-C-C-C-C-C_2$ 	4-methyl-6-(2,6,6-trimethyl-1-cyclohexenyl)-3,5-hexadien-2-one	A	285	4.1	Y4	850
	spirosta-22-4,6,8-trien-3-one	A	244 388	4.2 4.1	Y2	851
	24-methylcholesta-4,6,8(14)-trien-3-one; ergosta-4,6,8(14)-trien-3-one	A	348	4.4	B37	852
$O:C-C-C-C-C-C_2$ 	2,6-bis(perhydro-1-naphthylidene-ethylidene)-1-cyclohexanone	E	342	5.0	F48	853
$(O:C)(C:C)_4-C$	2,4,6,8-decatetraenal	A	240 353	3.5 4.3	B76	854
		D	343	4.6	B76	855
$(O:C)(C:C)_4-C_4$	2,6-dimethyl-8-(2,2,6-trimethylcyclohexylidene)-2,4,6-octatrienal	PE	356		I12	856
	4-methyl-6-(2,6,6-trimethyl-2-cyclohexylidene)-2,4-hexadienal	PE	353	4.7	I12	857
$(O:C)(C:C)_4-C$ 	13-apo-beta-carotenone	A	345	4.4	A41	858
		H	331	4.5	A41	859
$(O:C)(C:C)_5-C$	2,4,6,8,10-dodecapentaenal	A	263 377	4.0 4.7	B76	860
		An	380	4.8	B76	861
		C	268 380	3.9 4.9	B76	862
		D	264 370	3.8 4.8	B76	863

(O:C)(C:C)₅(O:C)(C:C)₉

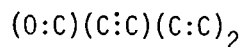
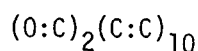
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
(O:C)(C:C) ₅ -C ₅	retinal	A	250 380.5	3.9 4.6	B24n	864
		C	255 389	3.6 4.6	B24n	865
		PE	245 369.5	3.6 4.7	B24n	866
	2,6-dimethyl-8-(2,6,6-trimethyl-2-cyclohexenylidene)-2,4,6-octatrienal	PE	383		I12	867
(O:C)(C:C) ₆ -C	2,4,6,8,10,12-tetradecahexaenal	An	399	4.7	B76	868
		D	285 393	4.1 4.8	B76	869
(O:C)(C:C) ₆ -C ₄	5,6-dihydro-5,6-dihydroxy-12'-apo- β -carotenal; apo-1-azafrinal	CD	461		K11	870
		PE	431		K11	871
(O:C)(C:C) ₆ -C ₅	6,10-dimethyl-12-(2,6,6-trimethyl-1-cyclohexenyl)-3,5,7,9,11-dodecapentaen-2-one	A	401	4.7	K7	872
		cH	395	4.8	K7	873
(O:C)(C:C) ₇ -C	2,4,6,8,10,12,14-hexadecaheptaenal	An	310 424	4.0 4.9	B76	874
		D	305 415	3.9 4.8	B76	875
(O:C)(C:C) ₇ -C ₆	12'-apo- β -carotenal; β -apo-4-carotenal	CD	\sim 460		K18	876
		PE	\sim 442		K18	877
(O:C)(C:C) ₈ -C ₅	2,6,11,15-tetramethyl-17-(2,6,6-trimethyl-2-cyclohexenyl)-2,4,6,-8,10,12,14,16-heptadecaoctaenal; α -apo-2-carotenal	CH	484		K11	878
		PE	450		K11	879
(O:C)(C:C) ₈ -C ₅	capsochrome	C	462		K11	880
		CD	482		K11	881
(O:C)(C:C) ₉ -C ₆	8'-apolycopenal; apo-3-lycopenal	B	488		K11	882
		CD	508		K11	883
		PE	473		K11	884
(O:C)(C:C) ₉ -C ₇	8'-apo- β -carotenal; β -apo-2-carotenal	A	\sim 498		K18	885
		CD	525		K18	886
		PE	484		K18	887



system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})(C:C)_9-C_5$	25-(1,2-dihydroxy-2,6,6-trimethylcyclohexyl)-6,6,10,14,19,23-hexamethyl-8,10,12,14,16,18,20,22,24-pentacosanonaene-2,7-dione; dihydroxysemi- β -carotenone	A	~ 471		K62	888
		C	479		K62	889
		CD	495		K62	890
		PE	468		K62	891
$(O:C)(C:C)_{10}-C_6$	6'-apolycopenal; apo-2-lycopenal	CD	528.5		K11	892
		PE	490.5		K11	893
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})(C:C)_{10}-C_7$	6,10,14,19,23-pentamethyl-25-(2,6,6-trimethyl-1-cyclohexenyl)-8,10,12,14,16,-18,20,22,24-pentacosanonaene-2,7-dione; semi- β -carotenone	C	~ 487		K66	894
		CD	499		K66	895
		PE	470		K66	896
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})(C:C)_{11}-C_9$	1-(2-acetyl-5,5-dimethyl-1-cyclopentenyl)-3,7,12,16-tetramethyl-18-(2,6,6-trimethyl-1-cyclohexenyl)-1,3,5,7,9,-11,13,15,17-octadecanonaene; anhydrosemi- β -carotenone	C	489		K63	897
		CD	509		K63	898
		PE	480		K63	899
	β -caroten-4-one	H	458		P10	900
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})(C:C)_{12}-C_9$	3,4-dehydro- β -caroten-4'-one	H	470	5.1	P10	901
$O:C-C:C-C:C:O$	fumaraldehyde	10	226 332	4.3 1.6	H83n	902
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-\underset{\text{C}}{\underset{ }{\text{C}}}:O$	3-hexene-2,5-dione	H	226 338	4.2 1.8	B100	903
		A	222	4.1	W6	904
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{C}}{\underset{ }{\text{C}}}:C-\underset{\text{C}}{\underset{ }{\text{C}}}:O$	3-carene-2,5-dione		240	3.9	C97	905
		A	237 354	4.1 1.8	C31	906
		A	252	4.0	F19	907
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{C}}{\underset{ }{\text{C}}}:O$	3 β ,26-diacetoxycholesta-5,17(20)-diene-16,22-dione	A	246	4.1	S5	908
	4-methylcholest-4-ene-3,6-dione	A	258.5	4.0	F19	909
	3 β -acetoxy-5 α -cholest-8-ene-7,11-dione	A	269	3.9	F28	910
	3 β -acetoxy-24-methyl-5 α -cholest-8(14)-ene-7,15-dione; 3 β -acetoxyergost-8(14)-ene-7,15-dione	A	255	3.7	S62	911



system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Cl}}{\text{C}}}:\overset{\text{C}}{\underset{\text{Cl}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	4,5-dichloro-4-cyclopentene-1,3-dione	cH	258 327	4.2 1.7	M1	912
	2,2,4,5-tetrachloro-4-cyclopentene-1,3-dione	cH	219 264 350	3.8 4.2 1.6	M1	913
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}:\overset{\text{C}}{\underset{\text{Cl}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	4-bromo-5-chloro-4-cyclopentene-1,3-dione	cH	269	4.1	M1	914
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}:\overset{\text{C}}{\underset{\text{Br}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	2,2,4,5-tetrabromo-4-cyclopentene-1,3-dione	cH	283	4.1	M1	915
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	3 β -acetoxy-4,4-dimethylcholesta-5,8-diene-7,11-dione; 3 β -acetoxy lanosta-5,8-diene-7,11-dione	A	272	4.1	B39	916
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	2,4-hexadienedial; mucoaldehyde	A	276	4.5	K8g	917
$O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	3,5-octadiene-2,7-dione	A	270	4.4	K8g	918
$(O:C)_2(C:C)_3-C_2$	2,7-dimethyl-2,4,6-octatrienedial	M	232 327	3.3 4.7	B152	919
$(O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}})(O:C)(C:C)_7-C_3$	4,9,13,17,17-pentamethyl-16,21-dioxo-2,4,6,8,10,12,14-docosaheptaenal; β -carotenone aldehyde	A	~442		K11	920
		C	450		K11	921
		CD	459		K11	922
		H	431		K11	923
$(O:C)_2(C:C)_8-C_4$	2,6,11,15-tetramethyl-2,4,6,8,10,12,14,-16-octadeca octaenedial; apo-3,12-lycopenedial, apo-1-bixindialdehyde	CD	484		K10	924
		PE	452		K10	925
$(O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}})(O:C)(C:C)_8-C_4$	21-hydroxy-2,6,11,15,19,19-hexamethyl-18-oxo-2,4,6,8,10,12,14,16-tetracosaoctaene; capsanthylal	CD	483		K11	926
		H	452		K11	927
$(O:C)_2(C:C)_9-C_4$	4,8,13,17-tetramethyl-2,4,6,8,10,12,14,-16,18-eicosanonaenedial; apo-2,12-lycopenedial, bixindialdehyde	C	490		K11	928
		CD	502		K11	929
		PE	468		K11	930
		Py	494		K11	931
$(O:\overset{\text{C}}{\underset{\text{C}}{\text{C}}})_2(C:C)_9-C_4$	6,6,10,14,19,23,27,27-octamethyl-8,10,-12,14,16,18,20,22,24-dotriacontanonaene-2,7,26,31-tetraone; β -carotenone	C	489		K11	932
		CD	499		K11	933
		PE	468		K11	934



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})_2(C:C)_{10}-C_6$	25-(2-acetyl-3-hydroxy-5,5-dimethyl-1-cyclopentenyl)-4-hydroxy-6,6,10,14,19,23-hexamethyl-8,10,12,14,16,18,20,22,24-pentacosanonaen-7-one; anhydrocapsanthinone	C	400		K11	935
		CD	517		K11	936
		cH	489		K11	937
		H	483		K11	938
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})_2(C:C)_{11}-C_8$	3,3'-dihydroxy- β -carotene-4,4'-dione; astaxanthin	H	493		K11	939
		C	506		K63	940
		CD	525		K63	941
		PE	494		K63	942
$(O:\underset{\text{C}}{\underset{ }{\text{C}}})_2(C:C)_{12}-C_8$	4,4'-dianhydro- β -carotene-3,3'-dione; rhodoxanthin	C	510		K11	943
		CD	525		K11	944
		PE	487		K11	945
$O:C-C:C-C$	2-butyral; tetrolaldehyde	A	225 316	3.4 1.9	L32	946
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C$	1-hexyn-3-one		214 308	3.7 1.3	B100	947
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C$	4-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3-butyln-2-one	H	219 298	3.9 2.0	A41	948
$O:C \begin{smallmatrix} C:C \\ C:C \end{smallmatrix} -C$	4-hexen-1-yn-3-one	A	223 333	3.9 2.2	B113	949
$O:C-C:C-C:C-C$	5-(1-hydroxy-2,2,6-trimethylcyclohexyl)-3-methyl-2-penten-4-ynal	M	275	4.1	I4	950
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C:C$	3-hexen-5-yn-2-one	A	255	4.1	B100	951
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C:C:C$	5-hexen-3-yn-2-one		251	3.9	B100	952
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C-C:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C$	6-methyl-3,5-octadien-7-yn-2-one	H	303	4.3	A41	953
$O:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C-C:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C$	8-(1-hydroxy-2,2,6-trimethylcyclohexyl)-6-methyl-3,5-octadien-7-yn-2-one	A	251 313	3.5 4.4	A41	954
		H	240 305	4.0 4.4	A41	955
$O:C-C:\underset{\text{C}}{\underset{ }{\text{C}}}-C:C-C:\underset{\text{C}}{\underset{ }{\text{C}}}-C-C_2$	3-methyl-5-(2,6,6-trimethyl-1-cyclohexenyl)-2-penten-4-ynal	PE	225 314	4.1 4.2	I4	956

(O:C)(C:C)(C:C)₃

(O:C)(N:N:C)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$(\text{O}:\underset{\text{C}}{\text{C}})(\text{C}:\text{C})(\text{C}:\text{C})_3\text{-C}_4$	6-methyl-8-(2,6,6-trimethyl-1-cyclohexenyl)-3,5-octadien-7-yn-2-one	H	244 340	4.0 4.4	I4	957
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N-N}$	3 α -acetoxy-12 α -bromo-11,20,21-trioxo-5 β -pregnane 20-(2,4-dinitrophenyl)-hydrazone	B	373	4.3	F35	958
		C	370	4.3	F35	959
		M	365	4.3	F35	960
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N-N}$	3 α -acetoxy-12 β -bromo-11,20,21-trioxo-5 β -pregnane 21-(2,4-dinitrophenyl)-hydrazone	B	360	4.4	F35	961
		C	351	4.4	F35	962
		M	358	4.4	F35	963
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N-N}$	4-oxo-2-phenyl-3-(phenylhydrazono)-1,2-pentanediol	A	247 357	4.2 4.2	R42	964
	2,3-pentanedione mono-(2,4-dinitrophenyl)hydrazone	A	229 361	4.1 4.4	B120	965
		C	256 352	4.1 4.4	B120	966
	butanedione monosemicarbazone	M	268		B87	967
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{N}}\text{:}\underset{\text{O}}{\text{C}}\text{-}\underset{\text{C}}{\text{N}}\text{:}\underset{\text{C}}{\text{C}}\text{-OC}$	5-ethyl-4,5-dihydro-2,6-dihydroxy-5-(1-methylbutyl)-4-oxopyrimidine; 5-ethyl-5-(1-methylbutyl)barbituric acid	*1	255	3.8	M25	968
	perhydro-5,5-dihydroxy-2,4,6-trioxo-pyrimidine; alloxane		no		H63	969
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{N}}\text{:}\underset{\text{S}}{\text{C}}\text{-}\underset{\text{C}}{\text{N}}\text{:}\underset{\text{C}}{\text{C}}\text{-OC}$	5-butyl-4,5-dihydro-6-hydroxy-5-isopropyl-2-mercapto-4-oxopyrimidine; 5-butyl-5-isopropyl-2-thiobarbituric acid	*2	304	4.4	M25	970
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:}\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N-O}$	3-carene-2,5-dione 5-oxime		222 295	3.9 4.0	C97	971
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:}\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N-OC}$	3-carene-2,5-dione 2-oxime		223 287	3.9 4.1	C97	972
$\text{O}:\underset{\text{C}}{\text{C}}\text{-}\underset{\text{C}}{\text{C}}\text{:N:N}$	1-diazo-3-methyl-2-pentanone	M	250	3.9	W18	973

*1 0.5N NaOH/W *2 0.1N NaOH/W

PART 8. (O:C)-CHROMOPHORES
N

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:C N	formamide	V	<180		H89	974
O:C-C N	N,N-dimethylformamide	V	<180		H89	975
	acetamide	M	\sim 207		S2g	976
	diacetylamine	C	259	1.8	P32n	977
		E	260	2.0	S32	978
	N-methylsuccinimide	M	222	2.6	M35	979
		W	221	2.8	M35	980
	2,8-dioxo-1-azabicyclo[3.3.0]octane; diketopyrrolizidine	W	222 260	4.0 2.0	M35	981
O:C-C:C N	acrylamide	M	no		S2g	982
	N-allylacrylamide	M	no		S2g	983
	N,N-diethylacrylamide	M	239.5		S2g	984
O:C-C:C-C N	N,N-diethylcrotonamide	A	215 242	4.0 3.8	B99	985
O:C-C:C-C-OC N	N,N-diethyl-3-hydroxycrotonamide [enol form of N,N-diethylacetoacetamide]	E C	253 256	4.0 3.5	U7 B48	986 987
O:C-C:C-C-C-C N	N-isobutyl-trans-2,trans-4-nonadien-8-yn- amide		258	4.5	C108	988
O:C-N:C-OC N	acetylurea	*1	222	3.1	S79	989
	hydantoin	*1	223	3.9	S79	990
		*2	221	3.9	S79	991
	1,5,5-trimethylhydantoin	*1	231	3.9	S79	992
	1-nitrohydantoin	W	231	4.0	S79	993
		*3	231	4.0	S79	994
		*1	245	4.0	S79	995

*1 0.01N NaOH/W *2 0.01N NaOC₂H₅/A *3 0.01N HCl/W




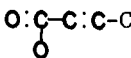
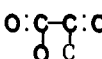
(O:CN₂)

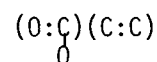
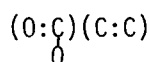
(O:CN₂)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
O:CN ₂	urea	W	<220		C79	996
		*1	<220		K39	997
	N,N'-dichlorourea	W	220		C75	998

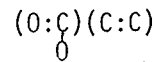
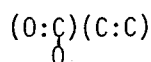
*1 0.1N NaOH/W

PART 9. (O:C)-CHROMOPHORES

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	formic acid	W	206.5	1.7	L18	999
		V	205	1.7	B98	1000
	acetic acid	A	204	1.6	L18	1001
		H	197	1.8	L18	1002
		Lq	204	1.7	L18	1003
		W	204	1.6	L18	1004
	ethyl acetate	W	204	1.8	L18	1005
	octadecanoic acid; stearic acid	A	210	1.7	C15	1006
	2,2-dimethyloctadecanoic acid	A	213	1.9	C15	1007
	succinic acid	W	204	2.0	B113	1008
	iodoacetic acid	PB	279	2.6	H16	1009
	acetic anhydride	Lq	217	1.7	L18	1010
	oxalic acid	W	~ 185 250	3.6 1.8	P7n	1011
	acrylic acid	M	~ 240		S2g	1012
	butyl acrylate	10	242		S2g	1013
	crotonic acid	A	204	4.0	M46	1014
		H	208	4.1	H24	1015
		W	200 250	4.0 2.0	M46	1016
	vinyl crotonate	cH	211		S2g	1017
	2-(carbamoylmethyl)-2,5-dihydro-5-oxofuran	A	225	3.5	E15	1018
	2,5-dihydro-5-oxo-2,2-pentamethylene-furan	A	214	4.0	H28	1019
	methacrylic acid	M	~ 227		S2g	1020
	ethyl methacrylate	A	214	3.8	U3	1021

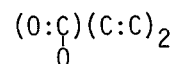
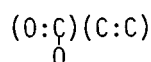


system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
$O:\underset{\underset{O}{ }}{C}-C:C-C_2$	3-methylcrotonic acid	A	216	4.0	U3	1022
$O:\underset{\underset{O}{ }}{C}-C:C-C_2$	ethyl 2-methylcrotonate	A	217	4.1	U3	1023
	methyl 3 β -acetoxy-20-nor-5-cholenoate; methyl 3 β -acetoxy-20-norallocholenoate		230	4.3	R48g	1024
	ethyl 3 β -hydroxypregna-5,17-dienoate	A	222	4.2	H59	1025
	3 α ,21-dihydroxy-5 β -card-20(22)-enolide	A	221	4.4	R45	1026
$O:\underset{\underset{O}{ }}{C}-C:C-C$	2-methyl-cis-crotonic acid; angelic acid	A	216	4.0	A7	1027
	2-methyl-trans-crotonic acid; tiglic acid	A	212	4.1	A7	1028
	5-ethylidene-3-methyl-6-oxooxane-2- carboxylic acid; integerrinecic acid	A	222	4.1	A7	1029
	methyl 3 β -acetoxy-5 β -androst-16-ene 17-carboxylate; methyl 3 β -acetoxy- 5 β -eti-16-enate	A	225	4.1	M32	1030
	1-cyclohexene-1-carboxylic acid	A	212	4.0	E17	1031
	1,4-cyclohexadiene-1-carboxylic acid	A	235	3.4	E17	1032
	3,4-secocholest-5-ene-3,4-dioic acid	A	215	4.0	F19	1033
	6-(1-hydroxycyclohexyl)-1-cyclohexene- 1-carboxylic lactone	M	220	4.0	08	1034
	2-(2,5-dihydro-4-methyl-5-oxo-2-furyl)- propionic acid	A	225	3.9	E16	1035
$O:\underset{\underset{O}{ }}{C}-C:C-C_2$	methyl 3 β -acetoxy-16-methyl-5 β -androsta- 5,16-dienoate; methyl 3 β -acetoxy-16- methyletia-5,16-dienate	A	253	4.1	R44	1036
	ethyl 3 β -hydroxy-B-norcholest-5-ene- 6-carboxylate	A	230	4.0	H35	1037
	2-(1-hydroxycyclohexyl)-1-cyclohexene-1- carboxylic lactone	M	220	4.0	08	1038
	2-(1-hydroxycyclohexyl)-1,4-cyclo- hexadiene-1-carboxylic lactone	M	210 230	3.8 3.6	08	1039
$O:\underset{\underset{O}{ }}{C}-C:C$	2-acetamidoacrylic acid	A	245	3.7	K32	1040
$O:\underset{\underset{O}{ }}{C}-C:C-NC$	ethyl 3-aminocrotonate	A	274	4.3	G16	1041
		cH	267.5	4.2	G16	1042



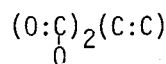
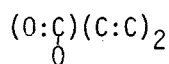
system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
	ethyl 3-(methylamino)crotonate	cH	282.5	4.3	G16	1043
	ethyl 3-anilinocrotonate	A	294	4.2	J31	1044
	ethyl 3-(dimethylamino)crotonate	A	224	4.5	G16	1045
		cH	275	4.3	G16	1046
	ethyl 3-(diethylamino)-4,4,4-trifluoro-crotonate	W	270	3.8	B48	1047
	ethyl 3-acetamido-cis-crotonate	A	265	4.3	G30	1048
	ethyl 3-acetamido-trans-crotonate	A	271	4.3	G30	1049
	3-anilino-2,5-dihydro-2,2-dimethyl-5-oxofuran	A	281	4.4	J31	1050
	3-(diethylamino)-2,5-dihydro-2,2-dimethyl-5-oxofuran	A	267	4.5	J31	1051
	4-(diethylamino)-5,6-dihydro-6-methyl-2-pyrone	A	291	4.4	J31	1052
$\begin{array}{c} \text{O:C-C:C-OC} \\ \text{O} \end{array}$	3-methoxycrotonic acid [methyl enolate of acetoacetic acid]	A	234	4.1	O12	1053
	3-phenoxyacetic acid [phenyl enolate of acetoacetic acid]	A	236	4.0	J31	1054
	ethyl 3-hydroxycrotonate [enol form of ethyl acetoacetate]	H	244	4.2	G32	1055
		*1	277			1056
	3-methoxy-2,5-dihydro-2,2-dimethyl-5-oxofuran	A	218	4.2	J31	1057
	2,5-dihydro-2,2-pentamethylene-3-phenoxy-5-oxofuran	A	223	4.1	J31	1058
	5,6-dihydro-4-methoxy-2-oxopyran	A	233	4.1	J31	1059
	2,2,4-trimethyl-6-oxo-1,3-dioxan	A	247.5	3.9	C11	1060
		iO	239	3.9	C11	1061
		W	252.5	3.9	C11	1062
$\begin{array}{c} \text{O:C-C:C-C} \\ \text{O} \quad \text{O} \end{array}$	2-methoxycrotonic acid [enol methyl ether of 2-oxobutanoic acid]	A	223	4.0	B98	1063
$\begin{array}{c} \text{O:C-C:C-O}_2 \\ \text{O} \end{array}$	ethyl 3,3-diethoxyacrylate	cH	234	4.2	G16	1064

*1 alkaline solution



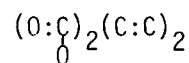
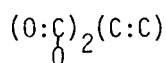
system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
$O:\underset{\underset{O}{ }}{C}-C:C-OC$	ascorbic acid	W	265	3.9	H62	1065
		A	245	3.9	K77g	1066
		*1	299	3.9	H29	1067
$O:\underset{\underset{O}{ }}{C}-C:C-ON$	ethyl 3-amino-3-ethoxyacrylate	A	265	4.2	G16	1068
		cH	254	4.1	G16	1069
$O:\underset{\underset{O}{ }}{C}-C:C-SC$	3-benzylthio-2,5-dihydro-2,2-penta-methylene-5-oxofuran	A	265	4.2	J31	1070
$O:\underset{\underset{O}{ }}{C}-C:C-ClC$	3-chloro-cis-crotonic acid	H	226	4.6	D4	1071
	3-chloro-trans-crotonic acid	H	221	4.3	D4	1072
$O:\underset{\underset{O}{ }}{C}-C:C-Cl$	2-chlorocrotonic acid	A	222	4.0	B98	1073
$O:\underset{\underset{O}{ }}{C}-C:C-ClC$	3,4-dichloro-2,5-dihydro-2-oxofuran; α, β -dichlorocrotonolactone	A	225	4.1	M59u	1074
$O:\underset{\underset{O}{ }}{C}-C:C-Br$	2-bromocrotonic acid	A	228	3.8	B98	1075
$O:\underset{\underset{O}{ }}{C}-C:C-C$ $C_2-C:C-C$	2-hydroxy-3-methyl-3,5-heptadiene-2,5-dicarboxylic acid; seneciophylic acid; α -longinecic acid	A	214	3.9	A8	1076
$O:\underset{\underset{O}{ }}{C}-C:C-C:C$	2,4-pentadienoic acid	A	242	4.4	J30c	1077
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C$	2,4-hexadienoic acid; sorbic acid	A	254	4.4	H24	1078
		H	261	4.4	H24	1079
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C_2$	4-cyclohexylidenecrotonic acid	A	272	4.4	R12	1080
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C$	3-methyl-2,4-hexadienoic acid; 3-methylsorbic acid	A	259		H24	1081
		H	266		H24	1082
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C_2$	3-(2,6,6-trimethyl-1-cyclohexenyl)-acrylic acid; β -cyclocitrylideneacetic acid	A	277	4.0	Y3	1083
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C_2$	3 β -acetoxycholest-5-en-7-ylideneacetic acid		268	4.2	D7	1084
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C$	3 β -acetoxo-5 α -carda-16,20(22)-dienolide		273	4.4	R47	1085

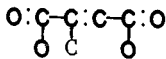
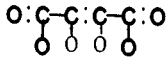
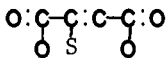
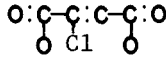
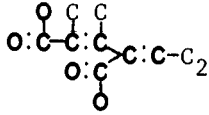
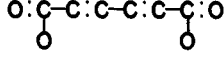
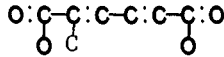
*1 0.1N NaOH/W



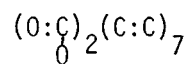
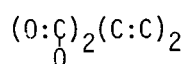
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C-C_2$	methyl 3 β -acetoxy-5 β -androsta-14,16-diene-17-carboxylate; methyl 3 β -acetoxy-5 β -etia-14,16-dienate	A	295	4.0	R48	1086
$O:\underset{\underset{O}{ }}{C}-C:C-\underset{\underset{O}{ }}{C}-C:C-C$	3-methoxy-2,4-hexadienoic acid; β -methoxysorbic acid	A	265	4.2	J31	1087
$O:\underset{\underset{O}{ }}{C}-C:C-C:C-C:C-C-C$	2,4,6-octatrienoic acid	A	294	4.6	H24	1088
		H	303	4.6	H24	1089
$O:\underset{\underset{O}{ }}{C}-C:C-\underset{\underset{O}{ }}{C}-\underset{\underset{O}{ }}{C}-C:C-C-C_2$	3 β -hydroxy-19-oxo-5 β -carda-14,16,20(22)-trienolide; dianhydroadonitoxigenin		222 338	4.0 4.3	T14	1090
$(O:\underset{\underset{O}{ }}{C})(C:C)_4$	cyclooctatetraenecarboxylic acid	A	<200 ~306	4.5 2.9	C92	1091
$(O:\underset{\underset{O}{ }}{C})(C:C)_4-C$	2,4,6,8-decatetraenoic acid	A	327	4.7	H24	1092
		H	332	4.7	H24	1093
	methyl 2,4,6,8-decatetraenolate	H	232 324	3.7 4.9	S55	1094
$(O:\underset{\underset{O}{ }}{C})(C:C)_4-C_3$	10-methoxy-4,9-dimethyl-2,4,6,8-decatetraenoic acid	A	333	4.7	A12	1095
$(O:\underset{\underset{O}{ }}{C})(C:C)_4-C_4$	5-methyl-7-(2,6,6-trimethyl-1-cyclohexenyl)-2,4,6-heptatrienoic acid		325	4.5	F4	1096
$(O:\underset{\underset{O}{ }}{C})(C:C)_5-C_5$	retinoic acid; vitamin A ₁ acid	A	350	4.6	F4	1097
		E	343	4.7	P11	1098
	methyl retinoate; vitamin A ₁ acid methyl ester	A	359	4.6	F4	1099
$(O:\underset{\underset{O}{ }}{C})(C:C)_7-C_4$	methyl 5,6-dihydro-5,6-dihydroxy-10'-apo- β -carotenoate; azafrin methyl ester; methylazafrin	C	428	4.6	K11	1100
		CD	445.5		K11	1101
		PB	422.5		K11	1102
$(O:\underset{\underset{O}{ }}{C})(C:C)_{12}-C_8$	methyl 6'-apo- β -carotenoate; torularhodin methyl ester	B	517		K17	1103
		CD	541		K17	1104
		PB	498		K17	1105
$O:\underset{\underset{O}{ }}{C}-C:C-C:\underset{\underset{O}{ }}{C}-O$	maléic acid	W	209	4.1	L23	1106
		*1	195	3.9	L23	1107

*1 Na salt in water



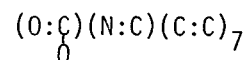
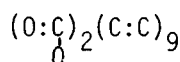
system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	fumaric acid	W	208 258	4.2 2.8	L23	1108
		*1	205	4.1	L23	1109
	methyl maleate	M	no		S2g	1110
	methyl fumarate	M	no		S2g	1111
	maleic anhydride	B	278	3.1	A29	1112
		C	no		A29	1113
		M	no		S2g	1114
	methylmalonic acid; mesaconic acid		no		J30	1115
	dihydroxymaleic acid	0.9	294	3.6	V7	1116
		5.8	291	3.7	V7	1117
	dihydroxyfumaric acid	E	300	3.9	H12	1118
		W	291	3.9	H12	1119
	methyl dimethoxymaleate	A	255		H51	1120
	methyl dihydroxyfuranate	E	308	4.0	H12	1121
	cyclohexylthiofumaric acid	M	296		S2g	1122
	chloromaleic anhydride	B	278	3.3	A29	1123
		C	no		A29	1124
	methyl 3-butyl-1,2,4,6-tetrahydro-4-oxo-5-oxaindene-7-carboxylate	A	285	4.3	S22	1125
	monomethyl trans-2,trans-4-hexadienedioate; monomethyl trans,trans-muconate	A	257	4.5	E15	1126
	2-isopropyl-cis-2,cis-4-hexadienedioic acid; 2-isopropyl-cis,cis-muconic acid	M	272	4.3	N21	1127
	methyl 2-isopropyl-cis-2,cis-4-hexadienedioate; methyl 2-isopropyl-cis,cis-muconate	M	270	4.3	N21	1128

*1 Na salt in water

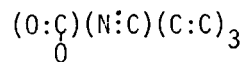
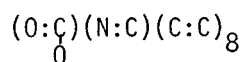


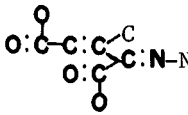
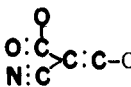
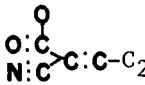
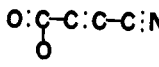
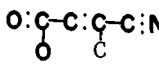
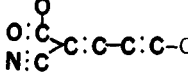
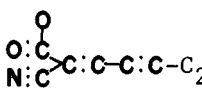
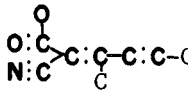
system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	2,5-dimethyl-trans-2,trans-4-hexadiene-dioic acid; 2,5-dimethyl-trans,trans-muconic acid	M	282	4.5	E16	1129
	methyl 1,3-cyclohexadiene-1,4-dicarboxylate	A	309	4.4	B160	1130
	2,5-dihydroxy-2,4-hexadienedioic acid; 2,5-dihydroxymuconic acid	M	324	3.9	H25	1131
	ethyl 2,5-dihydroxy-2,4-hexadienedioate; methyl 2,5-dihydroxymuconate	M	252 325	3.6 4.7	K68n	1132
	methyl 2,5-dimethoxy-2,4-hexadienedioate; methyl 2,5-dimethoxymuconate	A	304	4.4	W24	1133
	ethyl 2,3-dihydroxy-1,3-cyclopentadiene-1,4-dicarboxylate	*1	342	4.1	E1	1134
		*2	286	4.0	E1	1135
		*3	305 355	4.0 4.1	E1	1136
	2,3-dichloro-5-phenyl-1,3-cyclohexadiene-1,4-dicarboxylic acid	A	302	3.9	B160	1137
	4-(3,7-dimethyl-2,6-octadienylidene)-3-methyl-2-pentenedioic acid	cH	279	4.3	P11	1138
	4-(3,7-dimethyl-2,6-octadienylidene)-3-methyl-2-pentenedioic anhydride	iP	357	4.4	P11	1139
$(O:\underset{\underset{O}{ }}{C})_2(C:C)_3$	methyl 2,4,6-octatrienedioate	A	328 301	3.1 4.7	D40	1140
$(O:\underset{\underset{O}{ }}{C})_2(C:C)_3-C_2$	methyl 2,7-dimethyl-2,4,6-octatriene-dioate	C	321	4.7	I6	1141
		M	224 317	3.4 4.7	B152	1142
$(O:\underset{\underset{O}{ }}{C})_2(C:C)_4$	methyl 2,5,9-trimethyl-2,4,6,8-decetetraenedioate	H	350	4.3	K74	1143
$(O:\underset{\underset{O}{ }}{C})_2(C:C)_5-C_2$	4,9-dimethyl-2,4,6,8,10-dodecapentaenedioic acid	CD	419		K11	1144
$(O:\underset{\underset{O}{ }}{C})_2(C:C)_7-C_4$	2,6,11,15-tetramethyl-2,4,6,8,10,12,14-hexadecaheptaenedioic acid; trans-crocetin	C	434.5		K11	1145
		CD	453		K11	1146
		H	420		K11	1147

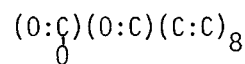
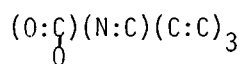
*1 conc. H_2SO_4 *2 1N HCl/M *3 5% KOH/W



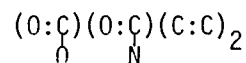
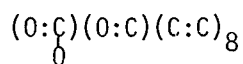
system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
		P	436		K11	1148
$(O:C)_2(C:C)_9-C_4$	4,8,13,17-tetramethyl-2,4,6,8,10,12,14,- 16,18-heneicosanonaenedioic acid; norbixin	C	474.5		K11	1149
		CD	492		K11	1150
$O:C-C-C$	2-heptynoic acid	A	210	3.8	H27x	1151
$O:C-C-C-C-C$	2,4-hexadiynoic acid		266	3.6	J32	1152
$O:C-C-C-C-C-C-C$	2,4,6-octatriynoic acid		220 286	4.8 3.4	J32	1153
$(O:C)(C:C)(C:C)_3-C_3$	ethyl 9-(1-hydroxy-2,2,6-trimethylcyclo- hexyl)-3,7-dimethyl-2,4,6-nonatrien- 8-ynoate	H	263 338.5	4.0 4.2	A41	1154
$(O:C)(C:C)(C:C)_4-C_5$	3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclo- hexenyl)-2,4,6-nonatrien-8-ynoic acid	H	265 351	4.1 4.5	A41	1155
$(O:C)_2(C:C)_2(C:C)_7-C_4$	methyl 4,8,13,17-tetramethyl-2,4,8,10,- 12,16,18-eicosaheptaene-6,14-diyanoate	A	284 420	4.6 4.6	A12c	1156
$O:C-C:C$	methyl 2-butyl-2,3-butadienoate		210-5		C23	1157
$O:C-C-N$	2-(2,4-dinitrophenylhydrazono)butanoic acid	A	243 254 364	4.1 4.1 4.4	B120	1158
		C	242 252 365	4.1 4.1 4.4	B120	1159
$O:C-C-C-C-C-N-N$	methyl 2-[3-(2,4-dinitrophenylhydraz- ono)-1-butenyl]-1,4-cyclohexadiene-1- carboxylate		256 395	4.2 4.5	S41u	1160
$(O:C)(N:C)(C:C)_5-C_2$	methyl 12-hydroxyimino-4,9-dimethyl- 2,4,6,8,10-dodecapentaenoate; azafrinal I methyl ester oxime	C	413		K11	1161
		CD	425		K11	1162
$(O:C)(N:C)(C:C)_6-C_3$	methyl 14-hydroxyimino-4,8,13-trimethyl- 2,4,6,8,10,12-tetradecahexaenoate; apo-3-norbixinal methyl ester oxime	CD	458		K11	1163
		PE	428		K11	1164
$(O:C)(N:C)(C:C)_7-C_3$	16-semicarbazono-4,8,13-trimethyl- 2,4,6,8,10,12,14-hexadecaheptaenoic acid; apo-2-norbixinal semicarbazone	A	471		K11	1165
		CD	493		K11	1166
$(O:C)(N:C)(C:C)_7-C_3$	methyl 16-hydroxyimino-4,8,13-trimethyl- 2,4,6,8,10,12,14-hexadecapentaenoate; apo-2-norbixinal methyl ester oxime	A	459		K11	1167
		CD	481		K11	1168

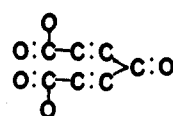
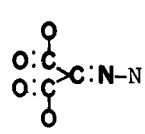
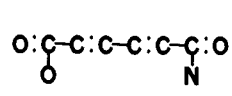


system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$(O:C)(N:C)(C:C)_8-C_4$	methyl 18-hydroxyimino-4,8,13,17-tetra- methyl-2,4,6,8,10,12,14,16-octadeca- octaenoate; apo-1-norbixinal methyl ester oxime	A CD PE	483 509 475		K11	1169 1170 1171
$(O:C)(N:C)(C:C)_8-C_5$	15-[2-(1-hydroxyiminoethyl-5,5-dimethyl- 1-cyclopentenyl)-4,9,13-trimethyl- 2,4,6,8,10,12,14-pentadecaheptaenoate; anhydroazafrinone methyl ester oxime	PE	447		K11	1172
	3-carboxy-4-(carboxymethylene)-5,5- dimethyl-1-phenyl-2-pyrazoline	M	247 375	3.9 4.2	N14	1173
	2-cyanocrotonic acid	A	215	4.0	A28	1174
	methyl 2-cyanocrotonate	A	220	3.9	A28	1175
	2-cyano-3-methylcrotonic acid	A	230	4.0	A28	1176
	ethyl 2-cyano-3-methyl-2-pentenoate	A	232	4.1	A28	1177
	2-cyano-2-cyclohexylideneacetic acid	A	235	4.0	B18	1178
	ethyl 2-cyano-2-cyclohexylideneacetate	A	237	4.0	B18	1179
	methyl 3-cyanoacrylate	M	no		M60	1180
	methyl 3-cyanocrotonate	M	no		M60	1181
	2-cyano-2,4-hexadienoic acid	A	276	4.3	A28	1182
	methyl 2-cyano-2,4-hexadienoate	A	282	4.3	A28	1183
	2-cyano-5-methyl-2,4-hexadienoic acid	A	295	4.3	A28	1184
	methyl 2-cyano-5-methyl-2,4-hexadienoate	A	302	4.4	A28	1185
	2-cyano-3-methyl-5-(2,6,6-trimethyl-2- cyclohexenyl)-2,4-hexadienoic acid	A	286	4.2	A28	1186
	methyl 2-cyano-3-methyl-5-(2,6,6-tri- methyl-2-cyclohexenyl)-2,4-hexadienoate	A	293 355	4.2 3.8	A28	1187
$(O:C)(N:C)(C:C)_3-C_3$	2-cyano-3,7,11-trimethyl-2,4,6-dodeca- trienoic acid	A	353	4.2	A28	1188
$(O:C)(N:C)(C:C)_3-C_4$	2-cyano-3-methyl-5-(2,6,6-trimethyl-1- cyclohexenyl)-2,4-pentadienoic acid	A	275 331	3.9 4.1	A28	1189



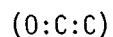
system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	methyl 2-cyano-3-methyl-5-(2,6,6-trimethyl-1-cyclohexenyl)-2,4-pentadienoate	A	286 353	4.0 4.1	A28	1190
$O:\underset{\underset{O}{ }}{C}-C:N:N$	ethyl diazoacetate	A	249 377.5	4.0 1.2	W43	1191
$O:\underset{\underset{O}{ }}{C}-\underset{\underset{C}{ }}{C}:O$	pyruvic acid	7.0	330	1.3	E17n	1192
$O:\underset{\underset{O}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-NC$	ethyl 2-acetyl-3-amino-2-butenolate	A	238 290	4.0 4.2	G30	1193
	2-methyl-4-oxo-2-pyrroline-3-carboxylic acid	A	239 291.5	4.1 3.9	D12	1194
	2-methyl-4-oxo-1-phenyl-2-pyrroline-3-carboxylic acid	A	246 309	4.1 4.0	D12	1195
$O:\underset{\underset{O}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{O}{ }}{C}:O$	ethyl 4-oxo-2-pentenoate		220 ~324	4.1 1.6	R8	1196
$O:\underset{\underset{O}{ }}{C}-\underset{\underset{C}{ }}{C}:\underset{\underset{C}{ }}{C}-\underset{\underset{O}{ }}{C}:O$	3-oxo-6,7-secocholest-4-ene-6,7-dioic acid	A	236	4.0	F19	1197
$(O:\underset{\underset{O}{ }}{C})(O:C)(C:C)_5-C_2$	methyl 11-formyl-4,9-dimethyl-2,4,6,8,10-undecapentaenoate; azafrinal I methyl ester	C CD	411 421		K11 K11	1198 1199
$(O:\underset{\underset{O}{ }}{C})(O:C)(C:C)_6-C_3$	methyl 13-formyl-4,8,13-trimethyl-2,4,6,8,10,12-tridecahexaenoate; apo-3-norbixinal methyl ester	A CD PE	440 455 425		K11 K11 K11	1200 1201 1202
$(O:\underset{\underset{O}{ }}{C})(O:C)(C:C)_7-C_3$	methyl 15-formyl-4,8,13,13-tetramethyl-2,4,6,8,10,12,14-pentadecaheptaenoate; apo-2-norbixinal methyl ester	CD PE	483.5 450		K11 K11	1203 1204
$(O:\underset{\underset{O}{ }}{C})(O:\underset{\underset{O}{ }}{C})(C:C)_7-C_3$	methyl 4,9,13,17,17-pentamethyl-16,21-dioxo-2,4,6,8,10,12,14-docosaheptaenoate; methylazafrinone	A C CD	457 472 483		K11 K11 K11	1205 1206 1207
$(O:\underset{\underset{O}{ }}{C})(O:C)(C:C)_8-C_4$	methyl 17-formyl-4,8,13,17-tetramethyl-2,4,6,8,10,12,14,16-heptadeca-octaenoate; apo-1-norbixinal methyl ester	A CD PE	458 478 445		K11 K11 K11	1208 1209 1210



system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$(O:C)(O:C)(C:C)_8-C_5$	15-(2-acetyl-5,5-dimethyl-1-cyclopentenyl)-4,9,13-trimethyl-2,4,6,8,10,12,14-pentadecaheptaenoic acid; anhydroazafrinone	C CD H	459 476 449		K11 K11 K11	1211 1212 1213
	4-oxo-2,5-heptadienedioic acid	A	240	4.1	A40	1214
	ethyl 4-oxo-2,5-heptadienedioate	A	238	4.2	A40	1215
	5,5-dimethyl-4-oxo-1-phenyl-2-pyrazoline-3-carboxylic acid	M	248 400	4.1 4.1	N14	1216
	methyl 5,5-dimethyl-4-oxo-1-phenyl-2-pyrazoline-3-carboxylate	M	251 394	4.0 4.2	N14	1217
	trans-2,trans-4-hexadienedioic acid monoamide; trans,trans-muconamidic acid	A	258 264	4.5 4.5	E15	1218

PART 10. OTHER (O:C)_X-CHROMOPHORES AND (O:C:C)-CHROMOPHORE

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:CO ₂	methyl carbonate		<180	1.7	L18	1219
O:C-C S	ethanethiolic acid; thiolacetic acid; acetothiolic acid	cH	219	3.3	K44	1220
	chloroethanethiolic acid; chlorothiol- acetic acid; chloroacetothiolic acid	cH	225	3.4	K44	1221
	dichloroethanethiolic acid; dichloro- thioacetic acid; dichloroacetothiolic acid	cH	237	3.4	K44	1222
	trichloroethanethiolic acid; trichloro- thiolacetic acid; trichloroaceto- thiolic acid	cH	238	3.4	K44	1223
	butyl ethanethiolate; butylthiolacetate; butyl acetothiolate	M	233	3.6	N11	1224
		W	235	3.7	N11	1225
	cyclohexyl ethanethiolate; cyclohexyl- thiolacetate; cyclohexyl acetothiolate	cH	232	3.7	K44	1226
	cyclohexyl chloroethanethiolate; cyclohexyl chlorothiolacetate; cyclohexyl chloroacetothiolate	cH	239	3.6	K44	1227
	cyclohexyl dichloroethanethiolate; cyclohexyl dichlorothiolacetate; cyclohexyl dichloroacetothiolate	cH	249	3.6	K44	1228
	cyclohexyl trichloroethanethiolate; cyclohexyl trichlorothiolacetate; cyclohexyl trichloroacetothiolate	cH	255	3.6	K44	1229
	2-aminopropanethiolic acid; thiol- α -alanine	W	249	3.9	W19	1230
	3-aminopropanethiolic acid; thiol- β -alanine	W	249	3.8	W19	1231
	4-acetoxy-1-butenyl ethanethiolate		251	3.9	M37	1232
O:C Cl	formyl chloride	Lq	235	1.7	B98	1233
O:C-C Cl	acetyl chloride	H	235	1.7	L18	1234
		Lq	234.5	1.7	K18	1235



system	compound	solv.	$\lambda_{max.}$	$\log \epsilon$	ref.	no.
$\begin{array}{c} O:C-C:O \\ Cl \quad Cl \end{array}$	oxalyl chloride		no		K55	1236
$\begin{array}{c} O:C \\ Br \end{array}$	acetyl bromide	Hp	250	2.0	S3	1237
$\begin{array}{c} O:C-C:O \\ Br \quad Br \end{array}$	oxalyl bromide		no		T19	1238
$O:C:C$	ketene	H	325	1.2	G12	1239
$O:C:C-C_2$	diethyl ketene	H	227 375	2.6 1.3	L3	1240

PART 11. (O:N)- AND (O:N)-CHROMOPHORES
0

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O:N-C	nitrosobutane	E	300 665	2.0 1.3	B113	1241
	2-methyl-2-nitrosopropane	E	296 675		J7	1242
	2,5-dimethyl-2-nitrosohexane	B	685		J7	1243
	2-chloro-2,3-dimethyl-3-nitrosobutane	B	690	1.3	J7	1244
	trifluoronitrosomethane	V	266 683	1.3 1.4	J7	1245
	1-chloro-1-nitrosoethane	PE	319 648	2.4 2.8	J7	1246
	2,2-dimethyl-3-chloro-3-nitrosobutane	B	670	1.2	J7	1247
	1-chloro-1-nitrosocyclohexane	B	655	1.3	J7	1248
	2-bromo-2-nitrosopropane	iP	645		L24	1249
	3-bromo-2,4-dimethyl-3-nitrosopentane	iP	676		L24	1250
O:N-N	dimethylnitrosamine	A	231 346	3.8 2.0	H19	1251
		H	235 366	3.7 2.0	H19	1252
		PE	232 361	3.8 2.1	H19	1253
	N-methyl(N-nitrosohydroxylamine)	*1	244	3.9	H19	1254
	2-(hydroxymethyl)-2-(N-nitrosohydroxy- amino)-1,3-propanediol	W	229	3.8	C10	1255
		*2	249	3.9	C10	1256
	methylenebis(N-nitrosohydroxylamine)	*3	231	4.1	H19	1257
	methylenebis(methoxynitrosamine)	A	244 380	3.9 2.0	H19	1258
O:N-O	butyl nitrite	A	218 357	3.2 1.7	H19	1259
		PE	222 356	3.2 1.9	H19	1260

*1 0.05N NaOH/W *2 0.25N NaOH/W *3 1N HCl

(O:N)

(O:N)
0

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
O:N-Cl	nitrosyl chloride	V	473 598.5		J7	1261
O:N-C O	nitromethane	A	271		B155	1262
		PE	277	1.3	J8	1263
		V	276	1.3	J8	1264
	1-nitropropane	PE	280	1.4	H17	1265
	1-chloro-1,1,2,2-tetrafluoro-2-nitro-ethane	PE	285	2.1	J8	1266
		V	284	1.7	J8	1267
	trifluoronitromethane	V	278	1.0	J8	1268
	2-chloro-2-nitropropane	PE	283.5	1.4	J8	1269
	1,1-dichloro-1-nitropropane	cH	281		S2g	1270
	trichloronitromethane; chloropicrin	PE	278.5	1.7	H17	1271
	2,2-dinitropropane	A	280	1.7	E5	1272
	tetranitromethane	A	~275	2.2	K50	1273
	nitramine; nitramide	W	225	3.8	L25	1274
	methylnitramine	*1	230	3.8	C10	1275
O:N-N O		*2	228.5	3.9	C10	1276
	2,2,2-tris(hydroxymethyl)ethylnitramine	W	235	3.8	C10	1277
		*1	234	3.8	C10	1278
		*3	236	3.9	C10	1279
	bis(nitramino)methane	A	226	4.1	H19	1280
	dimethylnitramine	D	240	3.8	H19	1281
		W	238	3.9	H19	1282
	N,N'-dinitropiperazine	D	250	4.0	H19	1283
	1,3,5-trinitroperhydro-1,3,5-triazine	A	213	4.0	S30	1284
	1,3,5,7-tetranitroperhydro-1,3,5,7-tetrazocine	A	228-9	4.3	S30	1285

*1 1N HCl/W *2 1N KOH/W *3 1N NaOH/W

$\begin{array}{c} \text{(O:N)} \\ \text{O} \end{array}$				$\begin{array}{c} \text{(O:N)} \\ \text{O} \end{array}$	$\begin{array}{c} \text{(N:C)} \end{array}$
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref. no.
$\begin{array}{c} \text{O:N-O} \\ \text{O} \end{array}$	ethyl nitrate		270	1.0	M45 1286
	potassium nitrate	W	301	0.8	V3c 1287
$\begin{array}{c} \text{O:N-C:C-C} \\ \text{O} \end{array}$	1-nitropropylene	A	235	4.0	B121 1288
		H	229	4.0	B121 1289
$\begin{array}{c} \text{O:N-C:C-C} \\ \text{O} \quad \text{C} \end{array}$	2-nitropropylene	A	225	3.5	B121 1290
$\begin{array}{c} \text{O:N-C:C-C}_2 \\ \text{O} \end{array}$	2-methyl-1-nitropropylene	A	245 251	3.9 3.9	B121 1291
		H	235	4.0	B121 1292
$\begin{array}{c} \text{O:N-C:C-C} \\ \text{O} \quad \text{C} \end{array}$	2-nitro-2-butene	A	242	3.8	B121 1293
		H	235	3.8	B121 1294
	2-nitro-2-hexene	A	251	3.8	B121 1295
		H	242	3.7	B121 1296
$\begin{array}{c} \text{O:N-C:C-C} \\ \text{O} \quad \text{Br} \end{array}$	1-bromo-1-nitropropylene	A	225 269	3.6 3.7	B121 1297
$\begin{array}{c} \text{O:N-C:C-C:C-C} \\ \text{O} \end{array}$	1-nitro-1,3-pentadiene	A	226 298	3.8 4.1	B121 1298
$\begin{array}{c} \text{O:N-N:C-N}_2 \\ \text{O} \end{array}$	nitroguanidine	A	265	4.2	S30 1299

PART 12. OTHER ALIPHATIC CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
S:C-N₂	thiourea	M	241	4.1	S2g	1300
		W	236	4.1	M18	1301
	tetramethylthiourea		236	4.2	K46	1302
	thiosemicarbazide	A	241	4.1	E22	1303
S:C-NC	ethanethionamide; thioacetamide	A	265	4.1	B155	1304
		E	320	4.5	H7u	1305
	N,N-pentamethyleneethanethiolamide; N-ethanethionoylpiperidine	E	325	4.3	H7u	1306
S:C-O₂	ethyl thionocarbonate; ethyl thio- carbonate; diethoxymethanethione	A	330	0.7	B113	1307
S:C-OC	cholest-5-en-3 β -yl ethanethionate	A	233	3.7	F52	1308
S:C-SN	sodium (diethylamino)methanedithionate; sodium diethyldithiocarbamate	A	257 291	4.1 4.1	K46	1309
	methyl (diethylamino)methanedithionate; methyl diethyldithiocarbamate	A	251 276	3.9 4.1	K46	1310
	perhydro-4,6-dimethyl-1,3,5-thiadiazine- 2-thione; thiouram carbomethyl	cH	243 288	3.7 4.1	A13	1311
	perhydro-3,5-dimethyl-1,3,5-thiadiazine- 2-thione; 2,4-dimethyl-2-methylene carbothialdine	cH	242 289	3.8 4.0	A13	1312
	methyl (N-methylanilino)methanedi- thionate; methyl methylphenyldi- thiocarbamate	cH	280	1.2	A13	1313
	perhydro-5-methyl-3-phenyl-1,3,5-thia- diazine-2-thione; 2-thio-3-phenyl-5- methyltetrahydro-1,3,5-thiadiazine	cH	241 299	3.9 3.9	A13	1314
S:C:S	carbon disulfide	CCl ₄	318	2.0	B104	1315
S:C:N-C	allyl isothiocyanate	D	240-2		S2g	1316
S:C:O	carbon oxysulfide; carbonyl sulfide		208	1.7	F37	1317
			224	2.3		

PART 13. METALLOCENE- AND $\begin{pmatrix} X \\ X \end{pmatrix} \begin{smallmatrix} \vdots \\ \vdots \end{smallmatrix} 5 : X$ -CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
Fe-5	ferrocene	cH	no		W31	1318
Fe- $\begin{smallmatrix} \text{O} \\ \vdots \\ \text{C} \end{smallmatrix} \begin{smallmatrix} \text{O} \\ \vdots \\ \text{C} \end{smallmatrix}$ -5	1,2-(1-oxopentamethylene)ferrocene		227 269	4.2 3.9	R16n	1319
O: O: 5:C-Cl ₂ C ₂	4,5-dichloro-2-(dichloromethylene)cyclopentene-1,3-dione	cH	248	4.4	M1	1320
O: O: 5:C-Br ₂ C ₂	4,5-dichloro-2-(dibromomethylene)cyclopentene-1,3-dione	cH	258 273	4.3 4.3	M1	1321
O: O: 5:C-Br ₂ BrCl	4-bromo-5-chloro-2-(dibromomethylene)cyclopentene-1,3-dione	cH	267	4.3	M1	1322

PART 14. (6)-CHROMOPHORE WITHOUT OTHER CONJUGATED UNIT CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6	benzene	H	198	3.9	B98	1323
			256	2.4		
C-6	toluene	H	261	2.5	F49	1324
	ethylbenzene	cH	261	2.3	S2g	1325
	tert-butylbenzene	A	207 257	3.9 3.2	B97	1326
	diphenylmethane	A	260	2.8	O13	1327
	triphenylmethane	A	262	2.9	O13	1328
	tetraphenylmethane	A	262	3.3	G8	1329
	phenylacetonitrile	M	257	3.2	S2g	1330
	diphenylacetonitrile	cH	258	2.6	S2g	1331
	phenylacetamide	M	257	2.3	S2g	1332
	butyl phenylacetate	cH	258		S2g	1333
	benzylamine	iO	260	2.2	F49	1334
	N,N-dimethylbenzylamine	cH	no		S2g	1335
	N-methyl(diphenylamine)	cH	253	3.9	S2g	1336
	1-phenylethyl alcohol	cH	257		S2g	1337
	1-phenylethyl acetate	cH	256		S2g	1338
	benzyl ether	A	252 257	2.8 2.8	K34	1339
	(epoxyethyl)benzene	A	260	2.3	K34	1340
	ethyl 2,3-epoxy-3-phenylpropionate; ethyl 3-phenylglycidate	cH	281		S2g	1341
	diphenylmethanol	cH	259	2.7	S2g	1342
	triphenylmethanol	M	225		S2g	1343
	4-bromo-2,5-dihydro-3-hydroxy-5-phenyl- 2-furanone	iO	240	4.0	S63	1344
	4-bromo-2,5-dihydro-3-methoxy-5-phenyl- 2-furanone	iO	242	4.0	S63	1345

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₂ -6	3-acetoxy-4-bromo-2,5-dihydro-5-phenyl-2-furanone	iO	<215	>4.2	S63	1346
	α -mercaptotoluene	cH	261		S2g	1347
	benzyl sulfide	iO	214 259	4.2 2.9	F49	1348
	benzyl ethyl sulfone	A	259	2.3	B92g	1349
	benzyl disulfide	iO	221 261	4.3 3.2	F49	1350
	α -chlorotoluene; benzyl chloride		220	3.7	A30	1351
	α,α -dichlorotoluene; benzal chloride		220	3.8	A30	1352
	diphenylchloromethane	cH	218		S2g	1353
	triphenylchloromethane	M	259		S2g	1354
	α -bromotoluene; benzyl bromide	H	194 227	4.4 3.8	M47	1355
	α -bromophenylacetonitrile	H	242 330	3.7 2.4	M47	1356
	o-xylene	M/W	210 262.5	3.9 2.5	D33	1357
	m-xylene	M/W	212 264.5	3.9 2.5	D33	1358
	p-xylene	H	268.5	2.9	D33	1359
	1,2-ethylenebenzene	A	265.5	3.3	C19	1360
	indan; hydrindene	H	274	3.3	S58	1361
	9,10-dihydro-9,10-methanoanthracene	A	278	3.4	V5c	1362
	1,2,3,4-tetrahydronaphthalene; tetralin	H	274	2.9	M51	1363
	9,10-dihydro-9,10-ethanoanthracene	A	272	3.3	V5c	1364
	1,4-decamethylenebenzene	A	223 268	3.9 2.5	C105	1365
	p-cymene	cH	211.5	2.6	S2g	1366
	2-[2-(dimethylamino)ethyl]isoindoline	A	265	2.9	R32	1367
	α -hydroxy-o-xylene	cH	252		S2g	1368

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	α, α' -dichloro-p-xylene; p-bis(chloromethyl)benzene	M	227 268	2.3	S2g	1369
	p-bis(trichloromethyl)benzene	M	236.5		S2g	1370
	α -bromo-o-xylene	cH	no		S2g	1371
	α -bromo-p-xylene	H	199 233	4.4 3.7	M47	1372
		D	245		S2g	1373
C ₃ -6	1,2,3-trimethylbenzene	H	266	2.6	C78	1374
	1,2,4-trimethylbenzene	H	275	2.9	C78	1375
	1,3,5-trimethylbenzene	H	266	2.5	C78	1376
C ₄ -6	1,2,4,5-tetramethylbenzene	H	279	2.9	C78	1377
	1,2,3,4,5,6,7,8-octahydrophenanthrene	A	272	2.6	A37q	1378
	1,2,3,4,5,6,7,8-octahydroanthracene	A	285	3.2	F49	1379
C ₅ -6	pentamethylbenzene	H	270	2.6	C78	1380
C ₆ -6	hexamethylbenzene	H	272	2.5	C78	1381
	1,2:3,4:5,6-tris(tetramethylene)benzene; 1,2,3,4,5,6,7,8,9,10,11,12-dodecahydro- triphenylene	A	272	2.5	S46	1382
Hg-6	diphenylmercury		227	4.4	L6	1383
	phenylmercuric benzoate	M	257		S2g	1384
	phenylmercuric chloride	A	258	2.5	L6	1385
HgC-6	di(p-tolyl)mercury	A	234 263	4.7 3.3	L6	1386
	p-tolylmercuric chloride	A	224.5 262.5	4.1 2.5	L6	1387
HgC ₃ -6	dimesitylmercury	A	257	4.0	L6	1388
Si-6	(trimethylsilyl)benzene	A	211 260	4.0 2.4	B97	1389
	didodecyldiphenylsilicon	cH	258.5		S2g	1390
	tetraphenylsilicon		237 265	3.2 3.1	M36	1391

(6)

(6)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
Sn-6	(triethylstannyl)benzene	A	204 251	4.3 2.9	B97	1392
	tetraphenyltin		259	3.0	M36	1393
Pb-6	(trimethylplumbyl)benzene	A	206 256	4.4 4.1	B97	1394
	tetraphenyllead	A	248	3.6	M36	1395
N-6	aniline	H	230 280	3.9 3.3	S19	1396
		io	234 288	3.9 3.3	F49	1397
		W	230 280	3.9 3.2	D33	1398
		acd	203 254	3.9 2.2	D33	1399
	N-ethylaniline	A	246.5 295	4.0 3.3	S30	1400
	diphenylaniline	A	285	4.3	S30	1401
	phenylguanidine carbonate	M	227		S2g	1402
	formanilide	M	241		S2g	1403
	acetanilide	M	242 280	4.2 2.7	U1o	1404
	malonanilide	M	245		S2g	1405
	phenylurea	A	~237 268-75	4.2 3.1	S30	1406
	N-ethyl-N'-phenylurea	A	240-1 275-7	4.3 3.0	S30	1407
	N,N'-diphenylurea; carbanilide	A	256	4.6	S30	1408
	ethyl phenylcarbamate	A	235-6 273-4	4.2 2.9	S30	1409
	phenylthiourea	A	267	4.0	M67	1410
	phenylselenourea	A	275	4.1	M67	1411
	N,N-dimethylaniline	A	205 251 299	4.1 4.1 3.3	B97	1412

system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
		acd	<210 256	3.0 2.2	W44n	1413
	N,N-diethylaniline	M	258 304	4.2 3.4	B97	1414
	N-phenylmorpholine	cH	248 284.5		S2g	1415
	methyldiphenylamine	A	245 291	3.9 4.1	J5	1416
	triphenylamine	A	228 297	3.9 4.3	J5	1417
	4-amino-1,2-dihydro-2,2-dimethyl-6-(N-methylanilino)-1,3,5-triazine hydrochloride	W	247		M43q	1418
	4,6-diamino-1,2-dihydro-1,2-diphenyl-1,3,5-triazine hydrochloride	W	251		M43q	1419
	N-ethyl-N-phenylurea	A	235-7	3.5	S30	1420
	N,N'-diethyl-N-phenylurea	A	239-41 270-3	3.6 3.0	S30	1421
	N,N,N'-triethyl-N'-phenylurea	A	252-4	3.9	S30	1422
	N,N'-diethyl-N,N'-diphenylurea; diethyl-carbanilide; centralite	A	247	3.9	S30	1423
	N,N-diphenylurea	A	242	4.1	S30	1424
	N,N-diethyl-N',N'-diphenylurea	A	245-6	4.1	S30	1425
	tetraphenylurea	A	266-7	4.3	S30	1426
	N-ethylformanilide	A	232-4	3.9	S30	1427
	N,N-diphenylformamide	A	240	4.2	S30	1428
	N-butylacetanilide	A	225	3.7	B62u	1429
	N,N-diphenylacetamide	M	266	4.2	L20	1430
	N,N'-diethyloxalanilide	A	230-1	4.1	S30	1431
	N,N'-diphenyloxalanilide	A	238-9	4.3	S30	1432
	ethyl N-ethyl-N-phenylcarbamate; ethyl-phenylurethan	A	231	3.7	S30	1433
	ethyl N,N-diphenylcarbamate; diphenyl-urethan	A	238	4.1	S30	1434

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ -6	N,N-diphenylcarbamic anhydride	A	236-7	4.4	S30	1435
	N,N,N-trimethylanilinium iodide	A	259	2.6	B97	1436
	N-ethyl-N-nitrosoaniline	A	270-3	3.8	S30	1437
	N-nitrosodiphenylamine	A	295-6	3.8	S30	1438
	N,N'-diphenylhydrazine; hydrazobenzene	A	285	4.0	L6u	1439
		M	228 315		S2g	1440
	tetraphenylhydrazine	A	258-9	4.2	S30	1441
			292-3	4.3		
	N-acetyl-N'-phenylhydrazine; N'-phenyl-acetohydrazide	M	234	4.0	S2g	1442
			280	3.0		
	1-phenylsemicarbazide	M	234	4.1	S2g	1443
			283	3.0		
	2-phenylsemicarbazide	A	242	4.0	M67	1444
	2-phenylthiosemicarbazide	A	255	3.9	M67	1445
	2-phenylselenosemicarbazide	A	271	3.9	M67	1446
	o-phenylenediamine	A	237	3.9	M56	1447
			293	3.6		
		9.0	206 233 289	4.6 3.8 3.5		D35
	m-phenylenediamine	A	230	4.0	S50	1449
			293	2.5		
		9.0	210 289	4.6 3.3		D35
	p-phenylenediamine	*1	243	2.1	S2g	1451
		A	244	3.9	A26	1452
			312	3.2		
	N-methyl-p-phenylenediamine	*2	253	2.0	A26	1453
		E	253	4.2	A26	1454
			329	3.5		
		*2	255	2.3	A26	1455

*1 dihydrochloride in M *2 5N/3 HCl/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	N-phenyl-p-phenylenediamine	A	288	4.2	A26	1456
		*1	285	4.1	S2g	1457
		*2	287	4.1	S2g	1458
		*3	280	4.1	A26	1459
	o-aminoacetanilide	A	290	3.5	G23r	1460
	m-aminoacetanilide	A	295	3.4	G23r	1461
	p-aminoacetanilide	A	259	4.2	G23r	1462
	N,N-dimethyl-p-phenylenediamine	E	258 329	4.2 3.5	A26	1463
		*4	254	2.4	A26	1464
	N,N-diphenyl-p-phenylenediamine	M	~245 302		S2g	1465
	bis[p-(dimethylamino)phenyl]amine	A	321	4.7	B155	1466
	p-bis[bis(2-cyanoethyl)amino]benzene	A	262 309	4.2 3.3	B123	1467
	o-diacetamidobenzene	A	278	3.0	G23r	1468
	m-diacetamidobenzene	A	233 285 293	4.4 3.1 3.1	G23r	1469
	p-diacetamidobenzene	A	265	4.4	G23r	1470
N ₃ -6	1,3,5-triaminobenzene trihydrochloride	M	234 273		S2g	1471
NC-6	o-toluidine		233 284	4.1 3.3	M54	1472
		*5	258.5		S2g	1473
	m-toluidine		237 287	4.1 3.3	M54	1474
			236 290.5	4.0 3.3	M54	1475
	p-toluidine	*5	260.5	2.5	S2g	1476

*1 monohydrochloride in M *2 monosulfate in M *3 N/6 HCl/W *4 5N/3 H₂SO₄/W
 *5 hydrochloride in M

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
		*1	207.5 260	3.9 2.5	D33	1477
		11.0	232 286	3.9 3.2	D33	1478
	m-(trifluoromethyl)aniline	A	241.5 300	4.0 3.3	S84	1479
		*2	241	3.1	S84	1480
	o-ethyl-N-methylaniline	cH	242 290.5		S2g	1481
	2-ethyldiphenylamine	cH	281		S2g	1482
	4-anilinotriphenylcarbonium salt	AA	268 352 491	4.0 4.0 4.6	W2	1483
		C	357 502	4.0 4.6	W2	1484
	4-anilino-4'-(dimethylamino)triphenyl- carbonium salt	AA	265 337 483	4.1 4.0 4.5	W2	1485
	o-acetotoluidide		231	3.9	M54	1486
	m-acetotoluidide		243	4.2	M54	1487
	p-acetotoluidide		246	4.3	M54	1488
	o-(acetoaceto)toluidide; N-acetoacetyl- o-toluidine	M	235		S2g	1489
	bis(o-ethylphenyl)amine	cH	281		S2g	1490
	N,N-dimethyl-o-toluidine	Hp	246 286	4.8 3.1	K37	1491
	N,N-diethyl-m-toluidine	M	261 302		S2g	1492
	N,N-dimethyl-p-toluidine	Hp	254 302	4.5 3.3	K37	1493
	bis[p-(dimethylamino)phenyl]methane	M	263 300		S2g	1494
	4-(dimethylamino)triphenylcarbonium salt	AA	263 343 462	4.1 3.9 4.5	W2	1495

*1 0.5N HCl/W *2 0.1M HCl/A

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
NC ₂ -6		C	350 476	3.9 4.5	W2	1496
	4,4'-bis(dimethylamino)triphenyl-carbonium salt	AA	262 322 450	4.0 3.7 4.5	W2	1497
	N,N-bis(2-cyanoethyl)-p-toluidine	A	252 300	4.2 3.3	B123	1498
	2-imino-1,3,3-trimethylindoline	E	263	4.2	K24	1499
	4-(N-methylanilino)triphenylcarbonium salt	AA	265 350 486	4.1 4.0 4.6	W2	1500
		C	267 355 495	4.0 4.0 4.6	W2	1501
	4-(diphenylamino)triphenylcarbonium salt	AA	265 361 522	4.0 4.0 4.6	W2	1502
		C	368 535	3.1 4.6	W2	1503
	4-(dimethylamino)-4'-(diphenylamino)-triphenylcarbonium salt	AA	270 348 515	4.1 4.0 4.5	W2	1504
	o-(diacetylamino)phenylacetonitrile	A	no		K24	1505
	N,N,N-trimethyl-p-toluidinium iodide	A	318	4.1	P42	1506
	2,4-dimethylaniline	M	234.5 287		S2g	1507
	2,6-diethylaniline	M	234 284	3.9 3.2	S2g	1508
	2,6-diisopropylaniline	cH	285		S2g	1509
	2,6,N,N-tetramethylaniline	Hp	194 211 259	4.6 3.9 3.3	K37	1510
NC ₃ -6	2,6-diethyl-m-toluidine	cH	288		S2g	1511
	2,6-diethyl-p-toluidine	cH	238.5 291		S2g	1512
N ₂ C-6	2,4-diaminotoluene	M	294		S2g	1513
	3,4-diaminotoluene	M	235-40		S2g	1514

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
NHg-6	bis(p-aminophenyl)mercury	A	297	4.0	L6	1515
	p-aminophenylmercuric chloride	A	253	4.1	L6	1516
P-6	dimethylphenylphosphine	cH	251	3.5	B97	1517
	triphenylphosphine	A	261	4.0	J6	1518
	trimethylphenylphosphonium iodide	A	265	3.0	B97	1519
	triphenylphosphine oxide	A	224 265.5	4.3 3.4	J6	1520
	benzenephosphonous acid	A	216 264.5	3.9 2.8	J6	1521
		*1	263.5	2.7	J6	1522
	diphenylphosphinic acid	A	224 265	4.1 3.1	J6	1523
		*2	222 264	4.1 2.9	J6	1524
	benzenephosphonic acid	A	263.5	2.7	J6	1525
		*1	263	2.6	J6	1526
		*3	258	2.4	J6	1527
	dimethylphenylarsine	A	241.5	3.8	B97	1528
	triphenylarsine	A	248	4.1	J5	1529
As-6	trimethylphenylarsinium iodide	A	262	2.9	B97	1530
	cyanodiphenylarsine	H	227 270	4.4 3.0	M47	1531
	triphenylarsine oxide	A	221 263	4.3 3.2	J5	1532
	chlorodiphenylarsine	H	270 351	4.0 1.4	M47	1533
	benzenearsonic acid	A	214 262	3.8 2.9	J5	1534
		*1	261.5	2.8	J5	1535
		*3	261	2.6	J5	1536

*1 univalent anion in W *2 anion in W *3 bivalent anion in W

(6)

(6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
AsN-6	p-aminobenzenearsonic acid	M	265.5		S2g	1537
	5,10-dihydrophenarsazine hydrochloride	H	198	5.2	M47	1538
			220	4.9		
			276	4.4		
357			3.8			
Sb-6	dimethylphenylstibine	A	250	3.6	B97	1539
	triphenylstibine	A	256	4.1	J5	1540
	dibromodimethylphenylantimony	A	265	2.8	B97	1541
	dichlorotriphenylantimony	A	218 263.5	4.5 3.2	J5	1542
Bi-6	triphenylbismuthine	A	248 280	4.1 3.6	J5	1543
O-6	phenol		210.5 270	3.8 3.2	D33	1544
		*1	235 287	4.0 3.4	D33	1545
	ethoxybenzene; phenetole	A	219.5 272	4.0 3.3	B97	1546
	diphenyl ether	*2	225 272	4.0 3.3	U5	1547
	phenyl acetate	cH	270	2.3	S2g	1548
	O ₂ -6	o-dihydroxybenzene; pyrocatechol	A	278	3.4	M56
3.0			275.5	3.4	D35	1550
11.0			236.5 292	3.8 3.5	D35	1551
m-dihydroxybenzene; resorcinol		A	276	3.3	M56	1552
		3.0	273.5	3.3	D35	1553
		11.0	236 287	3.9 3.5	D35	1554
p-dihydroxybenzene; hydroquinone		A	294	3.5	M56	1555
o-ethoxyphenol; o-hydroxyphenetole		cH	276		S2g	1556
m-methoxyphenol; m-hydroxyanisole		M	276		S2g	1557

*1 0.01N NaOH/W *2 cH+D(9:1)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
O ₃ -6	p-methoxyphenol; p-hydroxyanisole	M	225		S2g	1558
	m-acetoxyphenol	M	271 310		S2g	1559
	o-dimethoxybenzene		284	3.5	A5	1560
	m-dimethoxybenzene		275	3.4	A5	1561
	p-dimethoxybenzene	E	291	3.6	A21	1562
	m-diacetoxybenzene	M	~ 217 271.5		S2g	1563
	p-diacetoxybenzene	M	262.5		S2g	1564
	m-dibenzoxyloxybenzene	cH	233		S2g	1565
	1,2,3-trihydroxybenzene	M	267		S2g	1566
	OC-6					
OC-6	o-methylphenol; o-cresol	A	275	3.3	B157	1567
	m-methylphenol; m-cresol	A	275	3.3	B157	1568
	p-methylphenol; p-cresol	A	280	3.2	B157	1569
	tyrosine	7.3	275	3.0	S45n	1570
		12.0	295	3.3	S45n	1571
	o-ethoxytoluene; o-methylphenetole	cH	~ 213 271 277	 3.3 3.2	S2g	1572
	o-allyl(allyloxy)benzene	cH	260.5		S2g	1573
	m-ethoxytoluene; m-methylphenetole	cH	217.5 273 280		S2g	1574
	p-methoxytoluene; p-methylanisole	A	224 280	4.0 3.3	B115	1575
	xanthene	A	206.5 249 334	 3.9 1.1	S2g	1576
	9-phenylxanthene	A	215 248	 3.9	S2g	1577
	p-acetoxytoluene; p-tolyl acetate	A	207 265	3.9 2.7	B115	1578
	o-tolyl carbonate	cH	260.5		S2g	1579

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
OC ₂ -6	m-tolyl carbonate	cH	262		S2g	1580
	p-tolyl carbonate	M	264		S2g	1581
	2,3-dimethylphenol; 3-o-xlenol		279	3.2	M51	1582
	2,4-dimethylphenol; 4-m-xlenol		281	3.3	M51	1583
	2,5-dimethylphenol; p-xlenol	cH	275	3.3	F49	1584
	2,6-dimethylphenol; 2-m-xlenol	A	272.5	3.3	B157	1585
	3,4-dimethylphenol; 4-o-xlenol	cH	279	3.3	F49	1586
	3,5-dimethylphenol; 5-m-xlenol	A	278	3.3	B157	1587
	2,6-dimethylanisole; 2-methoxy-m-xylene	A	265	2.8	B157	1588
	1,2,3,4-tetrahydro-5-methoxynaphthalene	A	270.5 278	3.0 3.1	W27	1589
	1,2,3,4-tetrahydro-6-methoxynaphthalene		280	3.2	H75	1590
	3,5-dimethylanisole; 3-methoxy-m-xylene	A	271.5 279.5	3.2 3.2	B157	1591
	3-acetoxyestra-1,3,5(10)-trien-17-one-6,7-d ₂	A	270	2.9	P7g	1592
OC ₃ -6	2,3,5-trimethylphenol	cH	282.5	3.2	F49	1593
	2,4-di-tert-butyl-5-methylphenol	cH	286.5		S2g	1594
	2,4,6-trimethylphenol; mesitol	cH	278 284	3.3 3.3	F49	1595
	3-methyl-4,5-dipentylphenol	M	281		S2g	1596
	2-methoxymesitylene	A	269	2.8	B157	1597
OC ₄ -6	2,3,4,6-tetramethylphenol	A	280	3.2	B157	1598
	2,3,5,6-tetramethylphenol	A	276	3.1	B157	1599
	2,3,4,6-tetramethylanisole	A	270.5 278.5	2.7 2.7	B157	1600
	2,3,5,6-tetramethylanisole	A	266.5	3.2	B157	1601
OC ₅ -6	pentamethylphenol	A	281	3.2	B157	1602
	pentamethylanisole	A	271	2.7	B157	1603
O ₂ C-6	3-butyl-1,2-dihydroxybenzene; 3-butyl-pyrocatechol	A	276	3.4	M17	1604

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	4-butyl-1,2-dihydroxybenzene; 4-butyl-pyrocatechol	A	281	3.5	M17	1605
	4-hexyl-1,3-dihydroxybenzene; 4-hexyl-resorcinol	M	283		S2g	1606
	1,4-dihydroxy-2-methylbenzene; methyl-hydroquinone	M	292	3.4	S2g	1607
	1-hydroxy-4-(hydroxymethyl)-2-methoxybenzene	A	281	3.5	L10	1608
		*1	294	3.6	L10	1609
	3-propyl-1,2-dimethoxybenzene	A	271	3.1	M17	1610
	4-propyl-1,2-dimethoxybenzene	A	229 280	3.9 3.5	H78g	1611
	1-methyl-2,4-dimethoxybenzene	cH	279.5 327		S2g	1612
	1-acetoxy-4-allyl-2-methoxybenzene	cH	274		S2g	1613
O ₂ C ₂ -6	1,4-dihydroxy-2,5-di-tert-butylbenzene	M	254 293.5		S2g	1614
O ₂ C ₃ -6	2-ethyl-4,6,7-trimethyl-5-hydroxycumaran	A	296	3.6	K16	1615
O ₂ C ₄ -6	α -tocopherol acetate; vitamin E acetate	cH	284		S2g	1616
ON-6	o-aminophenol; o-hydroxyaniline	A	233 286	3.9 3.6	M56	1617
	m-aminophenol; m-hydroxyaniline	A	286	3.5	M56	1618
	p-aminophenol; p-hydroxyaniline	A	234 301.5	3.9 3.4	M56	1619
		3.0	218.5 262.5	3.8 3.2	D33	1620
	m-(dimethylamino)phenol	M	251 290		S2g	1621
	o-acetamidophenol; o-hydroxyacetanilide	A	242 284	4.0 3.7	L14	1622
		H	235 283	3.8 3.5	L14	1623
	p-acetamidophenol; p-hydroxyacetanilide	A	250	4.3	L14	1624

*1 0.014% KOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
ON ₂ -6	o-(diacetyl amino)phenol	A	238	3.9	L14	1625
		H	240	4.1	L14	1626
	p-(diacetyl amino)phenol	A	247	4.1	L14	1627
	o-methoxyaniline; o-aminoanisole	cH	237.5	3.8	S2g	1628
	m-methoxyaniline; m-aminoanisole	cH	229-36 285	3.8 3.3	S2g	1629
	p-phenoxyaniline; p-aminodiphenyl phenyl ether	A	243	3.9	S86	1630
	p-ethoxyacetanilide; p-acetamidophenethole	M	249		S2g	1631
	p-aminophenyl acetate; p-acetoxylaniline	A	241	4.0	L14	1632
	p-acetoxycetanilide	M	245		S2g	1633
	2,4-diaminophenol dihydrochloride	M	243 285		S2g	1634
O ₂ N-6	2,4-diaminoanisole	M	305		S2g	1635
	1,4-dibutyloxyaniline	H	294		S2g	1636
ONC-6	3-(dimethylamino)-4-methylphenol	M	213 285		S2g	1637
O ₂ NC-6	brucine	M	265 303	4.0 3.9	S2g	1638
OAs-6	p-hydroxybenzenearsonic acid	M	234		S2g	1639
S-6	benzenethiol; thiophenol	cH	236	4.0	K44	1640
	methylthiobenzene; methyl phenyl sulfide	A	205 254	4.1 4.0	B97	1641
	(2-methylcyclohexylthio)benzene	cH	259	3.8	K44	1642
	(1-methylcyclohexylthio)benzene	cH	269	3.2	K44	1643
	vinylthiobenzene	A	247 266	4.0 4.0	P38	1644
	phenyl sulfide	A	250	4.1	K44	1645
	dimethylphenylsulfonium perchlorate		220 265	3.9 3.0	B94	1646
	acetylthiobenzene	A	~235	3.7	C35	1647

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	phenyl sulfoxide		254	4.0	M8	1648
	methyl phenyl sulfone		217 264	3.8 3.0	F8	1649
	phenyl vinyl sulfone	A	225 267	4.1 3.0	P38	1650
	phenyl sulfone	A	235 266	4.2 3.3	H64	1651
	benzenesulfonamide		217.5 264.5	4.0 2.9	D33	1652
	benzenesulfonhydrazide	M	219 265	3.0	S2g	1653
	benzenesulfonic acid	M	215 261	4.6 2.3	S2g	1654
	barium benzenesulfonate		263	2.8	M51	1655
	methyl benzenesulfonate	M	217 264.5	3.9 2.7	S2g	1656
	phenyl disulfide	A	238	4.2	F45	1657
	phenyl disulfoxide		230-1	4.1	B43	1658
	methylthiosulfonylbenzene	A	220 262 267-8	4.0 3.3 3.3	L5	1659
	phenyl tetrasulfide	A	232	4.1	P45	1660
	p-mercaptotoluene	H	237 276	3.9 2.5	S2g	1661
SC-6	o-tolyl sulfide	A	248 274	4.1 3.7	M10	1662
	p-tolyl sulfide	A	252 276	4.2 3.8	M10	1663
	2,3-dihydrobenzo[b]thiophene 1,1-dioxide [sulfone of 2,3-dihydrobenzo- [b]thiophene]	A	213 267 276	3.8 3.0 3.0	T3	1664
	o-toluenesulfonamide	3.0	218 269	3.9 3.1	D35	1665
		*1	267.5	2.9	D35	1666

*1 0.1N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
SC ₂ -6	m-toluenesulfonamide	M	268		S2g	1667
	p-toluenesulfonamide	*1	226 262.5	4.1 2.7	D33	1668
	N-methyl-N-nitroso-p-toluenesulfonamide	M	\sim 224 262		S2g	1669
	ethyl p-toluenesulfonate	M	223 260	2.6	S2g	1670
	p-tolyl disulfide		242	4.3	B43	1671
SC ₂ -6	2,3-dihydro-6-methylbenzo[b]thiophene 1,1-dioxide [sulfone of 2,3-dihydro- 6-methylbenzo[b]thiophene]	A	217 270 277	3.9 3.0 3.0	T3	1672
SN-6	o-mercaptoaniline; o-aminothiophenol	M	340		S2g	1673
	p-aminophenylthioacetic acid	M	261.5		S2g	1674
	p-aminophenyl sulfide	A	264	4.4	M10	1675
	phenothiazine	M	254 318	4.5 3.7	H80	1676
	p-acetamidophenyl sulfide	A	271	4.4	M10	1677
	p-aminophenyl phenyl sulfoxide	A	278	4.0	S86	1678
	phenothiazine 5-oxide [sulfoxide of phenothiazine]	M	228 272 302	4.5 4.2 3.9	H80	1679
	m-aminophenyl sulfone	M	226.5 312.5		S2g	1680
	p-aminophenyl sulfone	A	295	4.5	W1	1681
	o-aminobenzenesulfonamide	6.0	206 240 302	4.5 3.8 3.5	D35	1682
		*2	237.5 295.5	3.9 3.5	D35	1683
	m-aminobenzenesulfonamide	6.0	209.5 238.5 297	4.5 3.9 3.4	D35	1684
		*2	293	3.3	D35	1685

*1 0.1N HCl *2 0.1N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
SO-6	p-aminobenzenesulfonamide; sulfanilamide	A	204 262	4.2	K77	1686
		*1	252	4.2	V3	1687
	p-(diethylamino)benzenesulfonamide; N ⁴ ,N ⁴ -diethylsulfanilamide	A	213 280	4.0 4.4	K77	1688
	p-acetamidobenzenesulfonamide; N ⁴ -acetylsulfanilamide	7.0	257	4.3	V3	1689
		*1	257	4.3	V3	1690
	(p-aminobenzenesulfonyl)guanidine; sulfanilguanidine; sulfaguanidine	7.0	259	4.3	V3	1691
	p-aminobenzenesulfonic acid; p-sulfaniline; sulfanilic acid	W	213 236	3.2	S2g	1692
	o-aminophenyl disulfide	M	335	3.8	S2g	1693
	p-aminophenyl disulfide hydrochloride		254-6	4.2	B43	1694
	(m-hydroxyphenyl)dimethylsulfonium iodide	*2	218.5 312	4.3 3.4	B94	1695
	(p-hydroxyphenyl)dimethylsulfonium methyl sulfate	*2	269	4.3	B94	1696
	p-(acetylthio)anisole	A	239	4.1	C35	1697
	m-hydroxyphenyl methyl sulfone	*3	223 286	3.8 3.5	B94	1698
		*2	248 314	3.9 3.6	B94	1699
	p-hydroxyphenyl methyl sulfone	*1	239	4.3	F10	1700
S ₂ O ₂ -6		*2	268	4.3	F10	1701
	sodium 2,3-dihydroxybenzene-1,5- disulfonate	M	231 289		S2g	1702
SOC ₂ -6	3-tert-butyl-4-hydroxy-5-methylphenyl sulfide	M	237 252		S2g	1703
Se-6	ethylselenobenzene	A	250	3.7	B97	1704
Te-6	ethyltellurobenzene	A	224 251	4.1 3.6	B97	1705
		cH	225 270	4.2 3.6	B97	1706

*1 1N NaOH *2 0.01N NaOH/W *3 48% A

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system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	diethylphenyltelluronium iodide	A	220 260	4.5 3.3	B97	1707
F-6	fluorobenzene	A	204 254	3.8 3.0	B97	1708
FC-6	o-fluorotoluene	H	260-9	3.0	S50	1709
	o-fluorophenylalanine	*1	261.5	2.9	B52	1710
	m-fluorophenylalanine	*1	262	2.9	B52	1711
	p-fluorophenylalanine	*1	264	2.9	B52	1712
FN-6	p-fluoroaniline	H	290-300	3.5	S50	1713
	o-fluoro-N,N-dimethylaniline	Hp	249.5	4.1	K37	1714
FO-6	m-fluorophenol	W	266	3.3	H72	1715
		alk	275.5	3.4	H72	1716
	o-fluoroanisole	cH	270		S2g	1717
Cl-6	chlorobenzene	A	210 264	3.9 2.3	B97	1718
Cl ₂ -6	o-dichlorobenzene	iO	219.5 269	3.6 2.5	S2g	1719
	m-dichlorobenzene	A	271	2.6	M56	1720
	p-dichlorobenzene	A	225 273	4.1 2.6	H43	1721
Cl ₃ -6	1,2,3-trichlorobenzene	cH	225.5 272		S2g	1722
	1,2,4-trichlorobenzene	cH	226 278 286		S2g	1723
	1,3,5-trichlorobenzene	A	271	2.3	P17	1724
Cl ₄ -6	1,2,3,4-tetrachlorobenzene	cH	281.5		S2g	1725
	1,2,3,5-tetrachlorobenzene	cH	294.5		S2g	1726
ClC-6	o-chlorotoluene	A	265	2.5	M56	1727
	m-chlorotoluene	A	267	2.5	M56	1728

*1 NaCl/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	p-chlorotoluene	A	277	2.7	M56	1729
	p-chlorophenylacetonitrile	cH	267		S2g	1730
	1,1,1-trichloro-2,2-bis(p-chlorophenyl)-ethane; DDT	M	219 235.5		S2g	1731
	o-chlorobenzylamine	M	249		S2g	1732
	p-chlorobenzylamine	M	259 266		S2g	1733
	α ,o-dichlorotoluene	cH	271		S2g	1734
	α ,p-dichlorotoluene	cH	226		S2g	1735
	α , α , α ,o-tetrachlorotoluene	cH	224 274		S2g	1736
	α , α , α ,p-tetrachlorotoluene	cH	234.5 267		S2g	1737
Cl ₂ C-6	2,4-dichlorotoluene	cH	217 282		S2g	1738
	3,4-dichlorotoluene	cH	282		S2g	1739
	2,4-dichlorobenzylamine	M	255		S2g	1740
	α ,2,4-trichlorotoluene	cH	228.5 275		S2g	1741
	α , α , α ,2,4-pentachlorotoluene	iO	234.5		S2g	1742
Cl ₂ C ₂ -6	2,5-dichloro-p-xylene	M	224.5		S2g	1743
Cl ₄ C ₂ -6	4,5,6,7-tetrachloro-2-(2-dimethylamino-ethyl)isoindoline	A	236	4.3	R32	1744
Cl ₅ C-6	α ,2,3,4,5,6-hexachlorotoluene	cH	217.5 308		S2g	1745
ClHg-6	bis(p-chlorophenyl)mercury	A	233	4.6	L6	1746
	p-chlorophenylmercuric chloride	A	226	4.2	L6	1747
ClN-6	o-chloroaniline	cH	236 290	3.8 3.3	S2g	1748
	m-chloroaniline	H	291	3.5	S50	1749
	p-chloroaniline	M	243 296	3.9 3.2	S2g	1750

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		*1	215.5 263	4.0 2.6	D33	1751
		*2	239 290	4.1 3.2	D33	1752
	p-chloro-N-methylaniline		245 295	4.0 3.2	G1	1753
	o-chloro-N,N-dimethylaniline	Hp	212 257 300	4.3 3.9 3.3	F49	1754
	N-(p-chlorophenyl)acetamidine	7.0	236	3.9	G1	1755
		*3	228	3.8	G1	1756
	o-chloroacetanilide	M	238.5	3.9	S2g	1757
	p-chloroacetanilide	M	247.5	4.2	S2g	1758
	N-(p-chlorophenyl)urea	7.0	243	4.0	G1	1759
		*3	234	4.0	G1	1760
	1-(isopropylamidino)-3-(p-chlorophenyl)- urea; 1-p-chlorophenyl-3-isopropylbi- guanide	7.0	240	4.2	G1	1761
		*3	253	4.2	G1	1762
	1-(isopropylamidino)-1-methyl-3-(p- chlorophenyl)urea; 1-(p-chlorophenyl)- 3-isopropyl-3-methylbiguanide	7.0	243	4.1	G1	1763
		*3	243	4.2	G1	1764
	N-(p-chlorophenyl)-N-methylguanidine	7.0	247	3.7	G1	1765
		*3	224	3.9	G1	1766
ClN ₂ -6	1,2-diamino-4-chlorobenzene	M	213 247 303		S2g	1767
Cl ₂ N-6	2,5-dichloroaniline	cH	241 295.5	2.5	S2g	1768
	3,4-dichloroaniline	M	247 305		S2g	1769
ClNC-6	3-chloro-p-toluidine	cH	237 296		S2g	1770
	bis(4-amino-3-chlorophenyl)methane	M	247		S2g	1771

*1 2N HCl/W *2 0.1N NaOH/W *3 univalent anion

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
ClP-6	o-chlorobenzenephosphonic acid	A	217 270.5	4.1 2.9	I6	1772
	m-chlorobenzenephosphonic acid	A	215 271	3.9 2.8	I6	1773
	p-chlorobenzenephosphonic acid	A	224 264	4.2 2.5	I6	1774
	bis(o-chlorophenyl)phosphinic acid	A	273.5	3.2	I6	1775
	bis(m-chlorophenyl)phosphinic acid	A	273	3.1	I6	1776
	bis(p-chlorophenyl)phosphinic acid	A	265	3.0	I6	1777
ClO-6	o-chlorophenol	A	278	3.4	B157	1778
	m-chlorophenol	cH	273 281		S2g	1779
	p-chlorophenol	A	283	3.3	B157	1780
		*1	225 279.5	3.9 3.2	D33	1781
		*2	244 298	4.1 3.4	D33	1782
	o-chloro(ethoxy)benzene; o-chloro-phenetole		218-20 275.5		S2g	1783
	p-chloroanisole	M	227 280.5	3.3	S2g	1784
	Cl ₃ O-6	2,4,6-trichlorophenol	A	294	3.5	B157
ethyl 2,4,5-trichlorophenoxyacetate		cH	287		S2g	1786
2,4,6-trichloroanisole		A	287	2.9	B157	1787
Cl ₄ O-6	ethyl 2,3,4,6-tetrachlorophenoxyacetate	cH	292		S2g	1788
Cl ₅ O-6	pentachlorophenol	M	302	3.5	S2g	1789
	methyl pentachlorophenoxyacetate	cH	296		S2g	1790
ClOC-6	2-benzyl-4-chlorophenol	H	284		S2g	1791
	4-chloro-3-methylphenol	M	228.5 284		S2g	1792
	4-chloro-2-methylphenoxyacetic acid	M	227.5 280	3.2	S2g	1793

*1 0.1N HCl/W *2 1N NaOH/W

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
ClOC ₂ -6	4-chloro-2-isopropyl-5-methylphenol; 6-chlorothymol	H	215-22		S2g	1794
ClON-6	4-chloro-2-methoxyaniline	M	243		S2g	1795
ClS-6	p-chloromercaptobenzene	H	243		S2g	1796
	p-chlorophenylthioacetic acid		267	4.0	B47	1797
	p-chlorobenzenesulfonamide	M	~225 264		S2g	1798
	p-chlorobenzenesulfonic fluoride	cH	268		S2g	1799
ClSe-6	p-chlorophenylselenoacetic acid		223 247.5	4.1 3.8	B47	1800
Cl ₂ F-6	1,4-dichloro-2-fluorobenzene	A	224 272	4.1 3.0	H43	1801
Br-6	bromobenzene	A	210 264	3.9 2.3	B97	1802
Br ₂ -6	p-dibromobenzene	A	228 273	4.2 2.5	H43	1803
BrC-6	m-bromotoluene	cH	268		S2g	1804
	p-bromotoluene	cH	270		S2g	1805
	2-(p-bromophenyl)cyclohexene	A	266	2.5	H87	1806
	3-acetoxy-4-bromo-5-(p-bromophenyl)-2,5-dihydrofuran-2-one	iO	226.5	4.4	S63	1807
	p-bromo- α -chlorotoluene	M	227.5		S2g	1808
BrC ₃ -6	2-bromomesitylene	cH	268		S2g	1809
BrN-6	p-bromoaniline	A	240 295	4.0 3.0	G1	1810
		*1	218.5 263	3.9 2.3	D33	1811
		*2	239.5 290	4.1 3.1	D33	1812
	o-bromo-N,N-dimethylaniline	Hp	254	3.8	K37	1813
	1-(isopropylamidino)-3-(p-bromophenyl)- guanidine; 1-(p-chlorophenyl)-5-propyl- biguanide	ntr	246	4.2	G1	1814
		*3	256	4.2	G1	1815

*1 0.1N HCl/W *2 0.1N NaOH/W *3 univalent anion

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
		*1	247	4.0	G1	1816
	p-bromoacetanilide	M	249	4.3	S2g	1817
	p-bromophenylhydrazine hydrochloride	M	237 284		S2g	1818
Br ₃ N-6	2,4,6-tribromoaniline	D	250.5		S2g	1819
BrNC-6	4-bromoaceto-o-toluidide	M	235		S2g	1820
BrO-6	o-bromophenol	A	279	3.4	B157	1821
	p-bromophenol	A	284.5	3.2	B157	1822
	o-bromoanisole	A	276	3.4	B157	1823
	p-bromoanisole	A	281	3.2	B157	1824
	p-bromophenyl ether	cH	239.5 272.5 281.5		S2g	1825
BrO ₂ -6	1-bromo-2,3-dihydroxybenzene; 3-bromopyrocatechol	A	279.5	3.4	M17	1826
Br ₂ O ₂ -6	ethyl 2,5-dibromo-4-methoxyphenoxy- acetate	A	229 297	4.1 3.7	J13n	1827
Br ₃ O-6	2,4,6-tribromophenol	A	295	3.5	B157	1828
	2,4,6-tribromoanisole	A	282 289	3.0 3.0	B157	1829
Br ₅ O-6	pentabromophenol	M	283 309		S2g	1830
BrOC-6	2-bromo-4-tert-butylphenol	cH	279.5		S2g	1831
Br ₂ OC-6	2,6-dibromo-4-tert-butylphenol	M	282 289		S2g	1832
BrS-6	p-bromophenyl sulfone	A	249	4.4	K47	1833
	2-phenylpropyl p-bromobenzenesulfonate	M	233.5 256.5		S2g	1834
Br ₂ F ₄ -6	1,4-dibromo-2,3,5,6-tetrafluorobenzene	A	227.5 248 270	4.2 3.2 3.1	H43	1835
BrCl-6	p-bromochlorobenzene	cH	273		S2g	1836

*1 bivalent anion

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
I-6	iodobenzene	A	226 256	4.1 2.9	B97	1837
I ₂ -6	p-diiodobenzene	cH	243		S2g	1838
IC-6	o-iodotoluene	cH	228 233 258.5		S2g	1839
	m-iodotoluene	cH	229 260		S2g	1840
	p-iodotoluene	M	227.5 256		S2g	1841
IN-6	1-(isopropylamidino)-3-(p-iodophenyl)- guanidine; 1-(p-iodophenyl)-5-propyl- biguanide	*1	248	4.2	G1	1842
		*2	260	4.2	G1	1843
		*3	250	4.0	G1	1844
IO-6	o-iodophenol	A	280	3.5	B157	1845
	p-iodophenol	A	282	3.2	B157	1846
	o-iodoanisole	A	278	3.5	B157	1847
	p-iodoanisole	A	281	3.2	B157	1848
I ₃ O-6	2,4,6-triiodophenol	A	294	3.6	B157	1849
	2,4,6-triiodoanisole	A	277	3.0	B157	1850
I ₂ OC-6	L-3,5-diiodotyrosine	11.9	312	3.7	K22	1851
ICl-6	o-chloroiodobenzene	cH	235 262.5		S2g	1852
IBr-6	o-bromoiodobenzene	cH	239		S2g	1853
	p-bromoiodobenzene		245 285	4.2 3.1	G1	1854
6-6	biphenyl	A	249	4.3	B46	1855
		C	251.5	4.3	G8	1856
		cH	246	4.2	F49	1857
		H	247.5	4.3	B46	1858
C-6-6	o-methylbiphenyl	cH	235	4.0	F50	1859

*1 neutral solution *2 univalent anion *3 bivalent anion

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C- 6-6 -C	p-methylbiphenyl	A	253	4.1	H66	1860
	2,2'-dimethylbiphenyl	A	268	3.0	W35	1861
	2,3'-dimethylbiphenyl		237	3.9	W48	1862
	3,3'-dimethylbiphenyl	A	249	4.2	W35	1863
	3,4'-dimethylbiphenyl		254	4.1	W48	1864
	4,4'-dimethylbiphenyl	A	255	4.3	W35	1865
	fluorene	A	206 260 301	4.6 4.3 4.0	C65	1866
	9,9-ethylenefluorene	A	268 302.5	4.2 4.0	G27	1867
	9-phenylfluorene	A	224 271 310	4.8 4.7 4.6	B109	1868
	9,10-dihydrophenanthrene	A	264 299.5	4.2 3.6	B46	1869
C ₂ - 6-6 -C	5,7-dihydrodibenz[c,e]oxepin	H	250	4.2	B46	1870
	2-methylfluorene	A	265 305	4.3 3.9	S13	1871
	4-methylfluorene	A	265	4.3	F49	1872
C ₂ - 6-6 -C ₂	2,2',4,4'-tetramethylbiphenyl	H	no		O7n	1873
	9,10-dihydro-4,5-dimethylphenanthrene	A	261	4.2	W43	1874
	5,7-dihydro-1,11-dimethyldibenz[c,e]-oxepin	A	243	4.0	W43	1875
C ₃ - 6-6 -C	2,3-dimethyl-9-phenylfluorene		230 271 311	4.8 4.8 4.5	B109	1876
C ₃ - 6-6 -C ₃	2,2',4,4',6,6'-hexamethylbiphenyl; bimesityl	A	264	2.7	P17	1877
N- 6-6	m-aminobiphenyl	H	303	3.3	W11	1878
	p-aminobiphenyl	A	278.5	4.0	H66	1879
	p-acetamidobiphenyl	A	274	4.4	S4	1880
N- 6-6 -N	2,2'-diaminobiphenyl	A	292	3.7	W35	1881

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N- 6-6 -C	4,4'-diaminobiphenyl; benzidine	A	285	4.4	W35	1882
		*1	278		S2g	1883
	4,4'-dianilinobiphenyl	A	334-5	4.7	S30	1884
	4'-acetamido-2-methylbiphenyl	A	260	4.4	S4	1885
	4-acetamido-4'-methylbiphenyl	A	248	4.3	M10	1886
NC- 6-6	4-acetamido-2-methylbiphenyl	A	260	4.3	S4	1887
NC- 6-6 -C	2-aminofluorene	A	287-8	4.3	S13	1888
	2-(dimethylamino)fluorene	A	303	4.4	S13	1889
	2-acetamidofluorene	A	288 313-4	4.4 4.1	S13	1890
	2-methanesulfonamidofluorene	A	274 304	4.4 3.9	S13	1891
	2-(N-methylmethanesulfonamido)fluorene	A	269-70 302	4.4 4.0	S13	1892
NC- 6-6 -NC	4,4'-diamino-3,3'-dimethylbiphenyl	M	282	4.4	S2g	1893
O- 6-6	2-hydroxybiphenyl	A	247	4.1	B157	1894
	3-hydroxybiphenyl	A	250	4.3	P35	1895
	4-hydroxybiphenyl	A	261	4.4	B157	1896
	2-methoxybiphenyl	A	246	4.1	B157	1897
	4-methoxybiphenyl	A	261	4.3	B157	1898
	4-acetoxymethylbiphenyl	A	251	3.9	H66	1899
O- 6-6 -O	2,2'-dihydroxybiphenyl	A	242	4.0	W35	1900
	3,3'-dihydroxybiphenyl	A	255	4.1	W35	1901
	4,4'-dihydroxybiphenyl	A	265	4.4	W35	1902
	2,2'-dimethoxybiphenyl	H	277	3.8	W35	1903
	3,3'-dimethoxybiphenyl		286	3.8	W35	1904
	4,4'-dimethoxybiphenyl	H	263	4.3	W35	1905
O ₂ - 6-6 -O	2'-methoxy-2,3-methylenedioxybiphenyl	M	286	3.8	K53	1906

*1 dihydrochloride in water

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
OC- 6-6 -C	2-methoxy-3',4'-methylenedioxybiphenyl	M	260 294	4.0 4.0	K53	1907
	4'-methoxy-2,3-methylenedioxybiphenyl	M	239 264	4.2 4.3	K53	1908
	4'-methoxy-3,4-methylenedioxybiphenyl	M	268	4.2	K53	1909
	1-hydroxyfluorene	cH	266	4.3	F49	1910
	2-hydroxyfluorene	A	272 306 314	4.3 3.8 3.8	S13	1911
	2-methoxyfluorene	A	271 303 314	4.3 3.8 3.8	S13	1912
	2-acetoxyfluorene	A	264 292 303	4.3 3.8 3.9	S13	1913
	2-methanesulfonyloxyfluorene	A	264 291 302	4.3 3.8 3.9	S13	1914
	9,10-dihydro-4,5-dimethoxyphenanthrene	A	272 293 304.5	4.1 3.9 4.0	B46	1915
	5,7-dihydro-1,11-dimethoxydibenz[c,e]-oxepin	H	253 283.5 293.5	3.9 4.0 4.0	B46	1916
O ₂ C- 6-6 -C	3'-ethyl-2-(hydroxymethyl)-4,5-methylene-dioxybiphenyl	A	257 293	3.9 3.7	W4	1917
OC ₂ - 6-6 -OC ₂	5,5'-di-tert-butyl-4,4'-dihydroxy-3,3'-dimethylbiphenyl	H	263		S2g	1918
O ₃ C- 6-6 -O ₃ C	2,2',5,5'-tetrahydroxy-4,4'-dimethoxy-6,6'-dipropylbiphenyl		280	3.6	D13	1919
ON- 6-6 -ON	4,4'-diamino-3,3'-dimethoxybiphenyl	M	303		S2g	1920
ONC- 6-6 -C	2-acetamido-1-hydroxyfluorene	A	279 291	4.4 4.4	W9	1921
	4-acetamido-1-hydroxyfluorene	A	265 292.5	4.3 3.9	W9	1922
	2-acetamido-3-hydroxyfluorene	A	275 280 319	4.2 4.2 4.2	W9	1923

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
ON- 6-6 -O ₃ C	3-(2'-amino-4,4',5,6-tetramethoxy-biphenyl-2-yl)propionic acid	A	227 290	4.1 3.5	F3	1924
S- 6-6 -S	9,10-dithiaphenanthrene 9-dioxide	*1	223 261 296	4.5 3.9 3.8	A32	1925
	sodium biphenyl-2,2'-disulfonate	A	277	3.3	W35	1926
SC- 6-6 -C	2-ethylthiofluorene	A	291	4.4	S13	1927
	2-acetylthiofluorene	A	276-8 304	4.4 4.2	S13	1928
	2-methylsulfonylfluorene	A	278 292 302	4.4 4.2 4.3	S13	1929
	2-(methanesulfinylthio)fluorene	A	276-8 308	4.5 4.4	S13	1930
SC ₂ - 6-6 -SC ₂	2,4,5,7-tetramethyl-9,10-dithiaphenanthrene 9-dioxide	*1	234 302	4.6 3.8	A32	1931
SC- 6-6 -NC	2-amino-7-methylsulfonylfluorene	A	230 332	4.1 4.4	S13	1932
F- 6-6 -F	4,4'-difluorobiphenyl	A	243	4.2	W35	1933
FN- 6-6 -FN	4,4'-diamino-2,2'-difluorobiphenyl	A	267	4.4	B66	1934
F ₂ N- 6-6 -F ₂ N	4,4'-diamino-2,2',6,6'-tetrafluorobiphenyl	A	261	4.4	B66	1935
Cl- 6-6	2-chlorobiphenyl	M	241		S2g	1936
Cl- 6-6 -Cl	2,2'-dichlorobiphenyl		no		S2g	1937
	3,3'-dichlorobiphenyl		252	4.4	P17	1938
	4,4'-dichlorobiphenyl		258	4.4	P17	1939
Cl ₃ - 6-6 -Cl ₃	2,2',4,4',6,6'-hexachlorobiphenyl	A	275	2.8	P17	1940
ClC- 6-6 -C	2-chlorofluorene	A	266 295 306	4.4 3.8 3.9	S13	1941
Cl- 6-6 -N	4-amino-4'-chlorobiphenyl	*2	254	4.3	J27	1942
ClN- 6-6 -ClN	4,4'-diamino-2,2'-dichlorobiphenyl	A	257	4.3	B66	1943
	4,4'-diamino-3,3'-dichlorobiphenyl	A	286	4.4	B66	1944

*1 1 volume C + 99 volume A *2 0.1N HCl

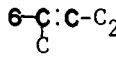
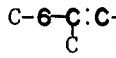
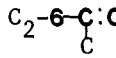
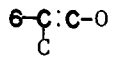
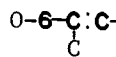
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system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
Br- 6-6	4-bromobiphenyl	cH	255		S2g	1945
Br- 6-6 -Br	4,4'-dibromobiphenyl	A	262	4.4	W35	1946
Br- 6-6 -N	4-amino-4'-bromobiphenyl	A	289	4.5	H66	1947
	4-acetamido-4'-bromobiphenyl	A	281.5	4.6	H66	1948
Br- 6-6 -O	3-bromo-4-hydroxybiphenyl	M	263		S2g	1949
	4-bromo-4'-hydroxybiphenyl	A	270	4.6	H66	1950
	4-bromo-4'-methoxybiphenyl	A	268	4.4	H66	1951
	4-acetoxy-4'-bromobiphenyl	A	259	4.4	H66	1952
Br- 6-6 -Cl	4-bromo-4'-chlorobiphenyl	A	268	4.4	H66	1953
I- 6-6	2-iodobiphenyl	H	228	4.2	D42	1954
I- 6-6 -I	4,4'-diiodobiphenyl	A	274	4.5	W35	1955
I- 6-6 -Br	4-bromo-4'-iodobiphenyl	A	270	4.4	H66	1956
6-6-6	o-terphenyl		232	4.4	M61	1957
	m-terphenyl	C	251.5	4.6	G8	1958
	p-terphenyl	C	280	4.4	G8	1959
		H	276	4.4	G8	1960
C- 6-6-6 -C	4,4''-dimethyl-p-terphenyl	A	283.5	4.0	H66	1961
O- 6-6-6 -O	4,4''-dihydroxy-p-terphenyl		248	4.4	M61	1962
	2,2''-dimethoxy-o-terphenyl		283	3.9	H81	1963
	4,4''-dimethoxy-p-terphenyl		247	4.5	M61	1964
O- 6-6-6 -O C	2,2''-dimethoxy-5'-methyl-p-terphenyl		283	3.9	H81	1965
6-6-6	1,3,5-triphenylbenzene	H	251	4.8	R26	1966
C- 6-6-6 -C C ₃	diindeno[3,2-a:3',2'-c]fluorene; triindeno[2,3:2',3':2'',3'']benzene	cH	273		S2g	1967
6-6-6-6	1,1':2',1'':2'',1''':-quaterphenyl	H	no		R6	1968
	1,1':4',1'':4'',1''':-quaterphenyl	C	300	4.6	G8	1969
		H	292	4.7	G8	1970
6-6-6-6	tetraphenylene	A	no		R6	1971

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6 -[6] ₃ -6	1,1':2',1":2",1"'':2''',1''''-quinquephenyl	C	234	4.7	W48	1972
	1,1':2',1":3",1"'':4''',1''''-quinquephenyl		236 274	4.5 4.6	W48	1973
	1,1':4',1":3",1"'':4''',1''''-quinquephenyl		284	4.5	W48	1974
	1,1':4',1":4",1"'':4''',1''''-quinquephenyl		310	4.8	G8	1975
6 -[6] ₄ -6	p-sexiphenyl	C	317.5	4.8	G8	1976
6 -[6] ₇ -6	m-noviphenyl	C	253	5.3	G8	1977
6 -[6] ₈ -6	m-decipheryl	C	253	5.3	G8	1978
6 -[6] ₉ -6	m-undecipheryl	C	253	5.3	G8	1979
6 -[6] ₁₀ -6	m-dodecipheryl	C	253	5.4	G8	1980
6 -[6] ₁₁ -6	m-tridecipheryl	C	253	5.4	G8	1981
6 -[6] ₁₂ -6	m-tetradecipheryl	C	253	5.5	G8	1982
6 -[6] ₁₃ -6	m-pentadecipheryl	C	254	5.5	G8	1983
6 -[6] ₁₄ -6	m-hexadecipheryl	C	255	5.5	G8	1984

PART 15. (6)(C:C)-, (6)(C:C)-, AND (6)(CUMULENOID)-SYSTEM

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6-C:C	styrene	A	244 282	4.0 2.8	B115	1985
6-C:C-C	cis-propenylbenzene	A	241 290	4.1 2.1	M43	1986
	trans-propenylbenzene	A	250 284 293	4.2 3.0 2.9	M43	1987
	cinnamyl alcohol	M	250	4.2	C8n	1988
	cinnamyl acetate	M	237 245		S2g	1989
	(3-chloropropenyl)benzene	cH	224 254	4.7 4.3	A30	1990
	(3,3-dichloropropenyl)benzene	cH	228 258	3.7 4.3	A30	1991
	(3-bromopropenyl)benzene	H	259	4.2	B122	1992
6-C:C C	isopropenylbenzene	A	240	4.1	R3	1993
C-6-C:C	o-methylstyrene	cH	246		S33	1994
	m-methylstyrene	C	253.5	4.1	L0n	1995
		cH	251		S33	1996
	p-methylstyrene	cH	253		S33	1997
6-C:C-C₂	(2-methylpropenyl)benzene; β,β -dimethylstyrene	iO	245	4.1	U6	1998
6-C:C-C C	1-phenylcyclohexene		247	4.1	C9u	1999
	1-phenylcycloheptene	M	248	4.1	N15	2000
C-6-C:C-C	indene	A	249	4.1	M50	2001
		H	246	4.0	M50	2002
	1,2-dihydronaphthalene	H	261	4.0	M51	2003
C₂-6-C:C	2,4-dimethylstyrene	cH	251		S33	2004
	2,5-dimethylstyrene	cH	247		S33	2005
	2,6-dimethylstyrene	cH	238		S33	2006

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	3,5-dimethylstyrene	C	255	4.1	L39	2007
		cH	254		S33	2008
6-C:C-C_2 	1,3-dimethyl-2-phenylcyclohexene		238	3.6	C9u	2009
C-6-C:C-C_2	2-(3,4-dihydro-2-naphthyl)butyric acid	A	213 218 270	4.3 4.3 4.1	D39	2010
C-6-C:C-C_2 	1-o-tolylcyclohexene		227 269	3.7 2.5	C9u	2011
	3-methylindene	A	252	4.0	R3g	2012
	1,2-dihydro-4-methylnaphthalene	A	259	3.8	R3g	2013
$\text{C}_2\text{-6-C:C-C}_2$ 	2-(2-m-xylyl)-1,3-dimethylcyclohexene		265	2.5	C9u	2014
6-C:C-N	β -(diethylamino)styrene	A	228 305	3.7 4.1	B97	2015
N-6-C:C	o-aminostyrene		221 250 314	4.3 3.9 3.5	J11	2016
6-C:C-O 	α,β -dihydroxystyrene [enol form of α -hydroxyacetophenone]	*1	224	4.0	V7	2017
O-6-C:C-C	o-(1-butenyl)phenol	*2	250 303	4.0 3.6	B4	2018
	p-propenylphenol	A	259	4.3	B115	2019
	p-(1-butenyl)phenol		261	4.3	B4	2020
	o-(1-butenyl)phenoxyacetic acid	*2	252.5 297.5	4.1 3.9	B4	2021
	p-propenylanisole	A	260	4.3	B115	2022
OC-6-C:C	2-methoxy-5-methylstyrene	C	250	4.1	L0n	2023
	4-methoxy-3-methylstyrene	C	265	4.2	L0n	2024
O-6-C:C-C 	o-(1-cyclopentenyl)phenol	*2	227.5 253 295	3.9 3.9 3.6	B4	2025
	p-(1-cyclopentenyl)phenol	*2	262	4.3	B4	2026

*1 Na salt in dil. NaOH/W *2 0.1% AA/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
OC- 6-C:C -C C	1,2,3,9,10,10a-hexahydro-7-methoxy-phenanthrene-1,2-dicarboxylic acid	A	265 300	4.2 3.5	B1	2027
OC ₂ - 6-C:C -C	3,5-dimethyl-2-propenylphenol	*1	220 254 297	4.4 4.0 3.4	B4	2028
OC- 6-C:C -C ₂ C	1,2,3,4,9,10-hexahydro-7-methoxy-phenanthrene-1,2-dicarboxylic acid	A	276	4.2	B1	2029
O ₂ - 6-C:C -C	2-methoxy-4-propenylphenol; isoeugenol	A	260 400	4.1 3.6	B56n	2030
	1,2-dimethoxy-4-cis-propenylbenzene [methyl ether of cis-isoeugenol]	A	260	4.1	B42	2031
	1,2-dimethoxy-4-trans-propenylbenzene [methyl ether of trans-isoeugenol]	A	263	4.2	B42	2032
	1,2-methylenedioxy-4-propenylbenzene; isosafrole	H	264 303	4.2 3.8	P37n	2033
	2-methoxy-4-propenylphenyl acetate [acetate of isoeugenol]	M	252 292.5		S2g	2034
O ₂ C- 6-C:C -C	α -codeimethine		275	4.0	B56g	2035
6-C:C -S	styrene- β -sulfonyl chloride	10	274	4.3	R30	2036
F- 6-C:C	m-fluorostyrene	C	248	4.0	L0n	2037
6-C:C -Cl	β -chlorostyrene	A	254	4.3	C91	2038
Cl- 6-C:C	o-chlorostyrene	C	246.5	4.1	L0n	2039
	m-chlorostyrene	C	250	4.1	L0n	2040
	p-chlorostyrene	C	258	4.5	L0n	2041
Cl ₂ - 6-C:C	2,3-dichlorostyrene	C	252	4.0	L0n	2042
	2,4-dichlorostyrene	C	257	4.2	L0n	2043
	2,5-dichlorostyrene	C	246	4.1	L0n	2044
	2,6-dichlorostyrene	C	244	3.8	L0n	2045
	3,5-dichlorostyrene	C	257	4.3	L0n	2046
6-C:C -Cl C	2,4-dichloro-3-phenyl-3-butenic acid	A	227		R19	2047

*1 0.1% AA/A

(6)(C:C)

(6)₂(C:C)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
6-C:C-Br	cis- β -bromostyrene	A	207 256	4.0 4.0	G37	2048
	trans- β -bromostyrene	A	211 258	4.0 4.0	G37	2049
Br-6-C:C	o-bromostyrene	C	248	4.1	L0n	2050
	m-bromostyrene	C	248	4.1	L0n	2051
	p-bromostyrene	C	259	4.5	L0n	2052
Br-6-C:C-C₂ 	4-(p-bromophenyl)-4-methoxy-3-methyl-3-butenic acid	A	260	4.0	L35	2053
C-C:C-6-C:C-C 	2,6-dipropenylphenol	*1	237.5 317.5	4.6 3.7	B4	2054
C-C:C-6-C:C-C 	4-(2-butenyl)-2,6-dipropenylphenol	*1	237.5 324	4.6 3.7	B4	2055
C:C-6-C:C 	1,2,3,5-tetrachloro-4,6-divinylbenzene		230	4.5	R36	2056
	1,2,4,5-tetrachloro-3,6-divinylbenzene		222-32 261	4.5 4.0	R36	2057
6-C:C-C:C	1-phenyl-1,3-butadiene	A	283 308	4.5 4.5	H67	2058
C:C-6-C:C 	1,3,5-trichloro-2,4,6-trivinylbenzene		238	4.6	R36	2059
6-C:C-C:C-C₂ 	3-methyl-6-phenyl-1-(2,6,6-trimethylcyclohexenyl)-1,3,5-hexatriene	A	338		S39	2060
6-6-C:C	1,1-diphenylethylene	A	250	4.0	L37	2061
6-6-C:C-C	1,1-diphenylpropylene		250	4.1	R3c	2062
	(diphenylmethylene)cyclopentane		250	4.3	L38	2063
	(diphenylmethylene)cyclohexane		246	4.2	L38	2064
C-6-C-6-C:C-C	1,2-dihydro-4-(o-tolyl)naphthalene	A	263	4.0	F49	2065
N-6-N-6-C:C	1,1-bis(p-dimethylaminophenyl)ethylene	A	288	4.5	G12	2066
O-6-C-6-C:C-C	1,2-dihydro-4-(o-methoxyphenyl)naphthalene	A	271	4.0	F49	2067

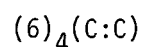
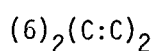
*1 0.1% AA/A

(6)₂(C:C)(6)₂(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
Cl-6 >C:C Cl-6	1,1-bis(p-chlorophenyl)ethylene	cH	242	4.4	F49	2068
F-6 >C:C-Cl ₂ F-6	1,1-dichloro-2,2-bis(p-fluorophenyl)-ethylene	cH	257	4.1	B73	2069
6-C:C-6	1,2-diphenyl-cis-ethylene; isostilbene; cis-stilbene	A	278	4.0	A31	2070
	1,2-diphenyl-trans-ethylene; stilbene; trans-stilbene	A	294	4.4	A31	2071
6-C:C-6 C	1,2-diphenyl-trans-propylene; α -methylstilbene	A	272	4.3	A31	2072
C-6-C:C-6	1-phenyl-2-(p-tolyl)-trans-ethylene; 4-methylstilbene	A	\sim 295	4.3	A31	2073
6-C:C-6 C C	2,3-diphenyl-trans-2-butene; α,β -dimethylstilbene	A	241	4.1	A31	2074
C-6-C:C-6 C	1,2-dihydro-3-phenylnaphthalene	cH	233 300	4.3 4.3	F49	2075
C ₃ -6-C:C-6	1-mesityl-2-phenyl-trans-ethylene; 2,4,6-trimethylstilbene		285	4.3	B44	2076
C ₃ -6-C:C-6-C ₃	1,2-dimesityl-trans-ethylene; 2,2',4,4',6,6'-hexamethylstilbene	A	265	4.2	B44	2077
N-6-C:C-6	1-(p-dimethylaminophenyl)-2-phenyl-trans-ethylene; p-dimethylaminostilbene	A	349	4.5	B44	2078
NC-6-C:C-6-C	3-acetamido-5H-dibenzo[a,d]cycloheptene		303	4.3	C8	2079
N-6-C:C-6-C ₃	1-(p-dimethylaminophenyl)-2-mesityl-trans-ethylene; 4'-dimethylamino-2,4,6-trimethylstilbene		336	4.5	B44	2080
O-6-C:C-6	1-(p-hydroxyphenyl)-2-phenyl-trans-ethylene; 4-hydroxystilbene	A	230	4.2	B115	2081
O-6-C:C-6-O	1,2-bis(p-hydroxyphenyl)-trans-ethylene; 4,4'-dihydroxystilbene	A	300	4.5	B115	2082
	1,2-bis(p-methoxyphenyl)-trans-ethylene; 4,4'-dimethoxystilbene		227.5 302.5	4.2 4.4	J12	2083
	1,2-bis(p-acetoxyphenyl)-trans-ethylene; 4,4'-dimethoxystilbene		227 298	4.2 4.5	J12	2084
O-6-C:C-6 C C	3-(p-hydroxyphenyl)-4-phenyl-trans-3-hexene	A	228	4.1	B115	2085

(6)₂(C:C)(6)₂(C:C)₂

system	compound	solv.	λ _{max.}	logε	ref.	no.
	1,2-bis(p-hydroxyphenyl)-trans-propene	A	223 282 291	4.1 4.4 4.4	B115	2086
	3,4-bis(p-hydroxyphenyl)-trans-3-hexene	A	239 279	4.3 3.8	B115	2087
	3,4-bis(p-methoxyphenyl)-trans-3-hexene	A	240 285	4.3 3.7	B115	2088
	3,4-bis(p-acetoxyphenyl)-cis-3-hexene	A	223 278	4.2 3.8	B115	2089
	3,4-bis(p-acetoxyphenyl)-trans-3-hexene	A	238	4.1	B115	2090
	7-methoxy-3-(p-methoxyphenyl)-2H-chromene; 4',7-dimethoxy-3-isoflavene	A	250 335	4.2 4.4	B103	2091
	7-methoxy-3-(p-methoxyphenyl)-4-methyl-2H-chromene; 4',7-dimethoxy-4-methyl-3-isoflavene	A	316	4.2	B103	2092
	1,2-dihydro-6,7-dimethoxy-3-(3,4-dimethoxyphenyl)naphthalene	A	223 333	4.3 4.4	B192	2093
	1,2-dichloro-1,2-diphenyl-cis-ethylene; α,α''-dichloro-cis-stilbene	A	270	3.8	A31	2094
	1,2-dibromo-1,2-diphenyl-cis-ethylene; α,α''-dibromo-cis-stilbene	A	290	3.7	A31	2095
	2-(hydroxymethyl)-4,5-methylenedioxy-3'-vinylbiphenyl		251	4.3	W4c	2096
	3,3',4,4'-tetrahydro-1,1'-binaphthyl	A	264	4.2	F50	2097
	3,4-bis(p-hydroxyphenyl)-2,4-hexadiene	A	229 280	4.4 4.0	B115	2098
	3,4-bis(p-acetoxyphenyl)-2,4-hexadiene	A	225	4.4	B115	2099
	1,4-diphenyl-cis-1,cis-3-butadiene	A	229 313	4.2 4.5	L34	2100
	1,4-diphenyl-trans-1,trans-3-butadiene	A	230 328	4.1 4.7	L34	2101
		B	334	4.6	H21	2102
	1,4-diphenyl-1,3-cyclopentadiene	cH	237.5 348		S2g	2103
	1,4-di(o-tolyl)-1,3-butadiene	A	274	4.4	H67	2104



system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
0-6-C:C-C:C-6-0	1,4-bis(p-methoxyphenyl)-1,3-butadiene	A	248 344	4.0 4.7	H67	2105
C1-6-C:C-C:C-6	1-(o-chlorophenyl)-4-phenyl-1,3-butadiene	D	238 318 330	4.1 4.6 4.6	H67	2106
	1-(m-chlorophenyl)-4-phenyl-1,3-butadiene	D	239 332	4.2 4.7	H67	2107
	1-(p-chlorophenyl)-4-phenyl-1,3-butadiene	D	236 332	4.2 4.7	H67	2108
C1-6-C:C-C:C-6-C1	1,4-bis(o-chlorophenyl)-1,3-butadiene	D	244 324	4.3 4.6	H67	2109
6-C:C-C:C-C:C-6	1,6-diphenyl-1,3,5-hexatriene	A	349	4.8	H67	2110
		B	358	4.9	H21	2111
6-C:C-C:C-C:C-C:C-6	1,2-diphenyl-1,3,5,7-cyclooctatetraene	A	375	5.0	B28	2112
6-C:C-C:C-C:C-C:C-C-6	1,8-diphenyl-1,3,5,7-octatetraene	A	375	5.0	H21	2113
		B	384	4.9	H21	2114
		D	308 374	4.4 5.2	H67	2115
6-[C:C] ₅ -6	1,10-diphenyl-1,3,5,7,9-decapentaene	B	403	5.0	H21	2116
6-[C:C] ₆ -6	1,12-diphenyl-1,3,5,7,9,11-dodecahexaene	B	420	5.1	H21	2117
6-[C:C] ₇ -6	1,14-diphenyl-1,3,5,7,9,11,13-tetradecaheptaene	B	435	5.1	H21	2118
6-C:C-6	1,1,2-triphenylethylene	C	302	4.2	A31	2119
6-C:C-6	1-ethoxy-1,2,2-triphenylethylene		295	4.1	R15	2120
	1-acetoxy-1,2,2-triphenylethylene		287	4.1	R15	2121
C-6-C:C-C-6	2-(3,4-dihydro-1-naphthyl)-3,4-dihydro-1-(o-tolyl)naphthalene	A	271	4.3	F49	2122
6-C:C-6-C:C-6	m-distyrylbenzene		298	4.7	B73	2123
6-6-C:C-C:C-6	1-(p-biphenyl)-4-phenyl-1,3-butadiene	A	264 348	3.9 4.9	H67	2124
(6) ₃ (C:C) ₄	p-bis(4-phenyl-1,3-butadienyl)benzene	A	328	4.7	B74	2125
6-C:C-6	tetraphenylethylene	C	~312	4.2	A31	2126

(6)₄(C:C)₂(6)₄([C:]₇C)

system	compound	solv.	λ _{max.}	logε	ref.	no.
	1,2,3,4-tetraphenyl-1,3-butadiene	D	356	4.6	H67	2127
	1,1,4,4-tetraphenyl-1,3-butadiene	cH	342.5	4.5	K51	2128
	1,1,2,4-tetraphenyl-1,3-butadiene	D	344	4.6	H67	2129
	1,1,8,8-tetraphenyl-1,3,5,7-octatetraene	D	338	4.6	H67	2130
	1,1,10,10-tetraphenyl-1,3,5,7,9-decapentaene	B	400	4.9	S55	2131
	1,1,12,12-tetraphenyl-1,3,5,7,9,11-dodecahexaene	cH	391	4.9	K51	2132
	1,1,10,10-tetraphenyl-1,3,5,7,9-decapentaene	cH	411.5	5.0	K51	2133
	1,1,12,12-tetraphenyl-1,3,5,7,9,11-dodecahexaene	cH	430	5.1	K51	2134
	phenylacetylene	H	235 272	4.2 2.5	M53	2135
	1-phenylpropyne	M	237		D41	2136
	diphenylacetylene	A	297	4.3	N3	2137
	diphenylbutadiyne	A	255 305 326	4.6 4.5 4.5	N3	2138
	diphenylhexatriyne	A	255 333	4.9 4.5	B86	2139
	diphenyloctatetrayne	A	285 365 397	5.1 4.5 4.3	S21n	2140
	diphenyldecapentayne	M	307 368 397	5.2 4.4 4.4	S21n	2141
	diphenylhexadecaocstayne	EA	341.5 430	5.4 4.1	J32	2142
	tetraphenylpropadiene		267		C23	2143
	tetraphenylbutatriene	B	315 420	3.6 4.6	K72	2144
	tetraphenylhexapentaene	B	370 489	4.4 5.1	K75	2145
	tetraphenyloctaheptaene	B	530 557		K75	2146

PART 16. (6)(N:N)-, (6)(N:N)-, AND (6)(N:N:N)-SYSTEM
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
6-N:N-C	methylazobenzene	H	259.5 403.5	3.9 1.9	B154	2147
		*1	334	4.0	B154	2148
	tritylazobenzene	H	266 420.5	4.1 2.3	B154	2149
6-N:N-N	3,3-pentamethylene-1-phenyltriazene	H	289.5	4.2	B154	2150
	1,3-diphenyltriazene		236 288 294 355	4.2 3.8 3.8 4.3	F43	2151
	triphenyltriazene	A	235.5 345	4.2 4.3	S30	2152
Cl-6-N:N-S	potassium o-chlorophenyldiazosulfonate	W	292 428	3.8 2.3	L7	2153
6-N:N-6	cis-azobenzene	B	325 440	4.1 3.0	B131	2154
		C	324 438	4.2 3.1	C83	2155
	trans-azobenzene	A	228 318 442	4.2 4.3 2.7	D2	2156
		B	321 440	4.3 2.5	B131	2157
		C	319 445	4.3 2.5	C83	2158
		cH	229 316	4.0 4.3	S2g	2159
		H	313 448	4.3 2.6	B154	2160
		*2	320 423	4.3 2.8	B159	2161
		*3	236 430	3.7 4.3	D2	2162

*1 H₂SO₄ *2 A + W (1:9) *3 conc. H₂SO₄

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C-6-N:N-6	m-methyl-cis-azobenzene	C	299 477	4.0 3.3	C83	2163
	m-methyl-trans-azobenzene	C	322 446	4.3 2.8	C83	2164
	p-methyl-cis-azobenzene	C	299 450	3.8 2.3	C83	2165
	p-methyl-trans-azobenzene	C	330 448	4.2 2.8	C83	2166
C-6-N:N-6-C	2,2'-dimethyl-trans-azobenzene	A	235 332	4.0 4.2	B30	2167
	3,3'-dimethyl-cis-azobenzene	C	329 424	3.8 3.2	C83	2168
	3,3'-dimethyl-trans-azobenzene	C	331 447	4.2 2.8	C83	2169
	4,4'-dimethyl-cis-azobenzene	C	326 444	4.0 3.1	C83	2170
	4,4'-dimethyl-trans-azobenzene	C	338 445	4.4 3.1	C83	2171
N-6-N:N-6	m-amino-trans-azobenzene	A	230 316	4.2 4.2	D2	2172
	p-amino-cis-azobenzene	B	332 450	4.0 3.4	B131	2173
	p-amino-trans-azobenzene	A	387	4.4	B132	2174
		B	377	4.4	B132	2175
		C	370	4.4	B132	2176
		EA	389	4.4	B132	2177
		iO	362	4.4	B132	2178
	p-(methylamino)-trans-azobenzene	*1	323 502	4.1 4.4	C34	2179
		*2	376	4.3	C34	2180
		A	402		M39	2181
		*1	511		M39	2182

*1 acid A *2 pH 7.0 (0.001M phosphate buffer)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N-6-N:N-6-N	p-(dimethylamino)-cis-azobenzene	B	362 460	4.1 3.6	B131	2183
	p-(dimethylamino)-trans-azobenzene	A	410	4.4	B132	2184
		B	410	4.5	B132	2185
		C	410	4.4	B132	2186
		EA	411	4.4	B132	2187
		iO	398	4.5	B132	2188
		*1	320 518	3.8 4.6	C34	2189
		*2	409	4.3	C34	2190
	trimethyl(trans-p-phenylazophenyl)- ammonium iodide	A	320 443	4.3 2.7	P33	2191
	p-acetamido-trans-azobenzene	A	348	4.5	P33	2192
	4-amino-4'-(dimethylamino)-trans-azo- benzene	A	254 417	4.1 4.6	P33	2193
	4,4'-bis(dimethylamino)-trans-azobenzene	*3	406		B149	2194
	4-acetamido-4'-(dimethylamino)-trans- azobenzene	A	318 432	4.0 4.6	P33	2195
	N,N,N-trimethyl-4-(4-acetamidophenyl- trans-azo)anilinium iodide	A	362	4.5	P33	2196
N ₂ -6-N:N-6	2,4-diamino-trans-azobenzene; chrysoidine	A	411	4.3	M49n	2197
N-6-N:N-6-C	4'-amino-2-methyl-trans-azobenzene	*1	328	4.3	C34	2198
	4-amino-4'-methyl-trans-azobenzene	*1	331 515	4.2 4.4	C34	2199
	3-methyl-4'-(methylamino)-trans-azo- benzene	A	401		M39	2200
		*1	513		M39	2201
	4'-(dimethylamino)-3-methyl-trans-azo- benzene	A	408		M39	2202
NC-6-N:N-6		*1	524		M39	2203
	4-amino-2-methyl-trans-azobenzene	*1	275 ~325 502	3.8 3.7 4.6	C34	2204

*1 acid A *2 pH 7.0 (0.001M phosphate buffer) *3 0.02M AA/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	4-amino-3-methyl-trans-azobenzene	*1	273 323 508	3.8 3.9 4.6	C34	2205
	3-methyl-4-(methylamino)-trans-azo- benzene	A	404		M39	2206
		*1	514		M39	2207
	4-(dimethylamino)-3-methyl-trans-azo- benzene	A	375		M39	2208
		*1	230 320		M39	2209
	4'-(dimethylamino)-trans-azobenzene-3- phosphonic acid	9.0	450	4.3	K40	2210
	4'-(dimethylamino)-trans-azobenzene-4- phosphonic acid	9.0	455	4.3	K40	2211
	4'-(dimethylamino)-trans-azobenzene-4- arsonic acid	9.0	460	4.3	K40	2212
	o-hydroxy-trans-azobenzene	A	323	4.3	B132	2213
		B	325	4.3	B132	2214
		C	325	4.2	B132	2215
		EA	332	4.2	B132	2216
		10	321	4.3	B132	2217
	p-hydroxy-trans-azobenzene	A	350 430	4.4 3.2	Z3	2218
		C	348	4.5	B158	2219
		H	336.5	4.5	B158	2220
		*1	345 430	4.6 3.2	Z3	2221
	o-methoxy-cis-azobenzene	C	351 440	4.2 3.1	C83	2222
	o-methoxy-trans-azobenzene	A	316.5 448	4.1 3.0	B154	2223
		C	327 445	4.2 3.2	C83	2224
		H	314.5 455	4.1 2.8	B154	2225

*1 acid A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O- 6 -N:N- 6 -O		*1	316.5 448	4.1 3.0	B154	2226
	m-methoxy-trans-azobenzene	H	312.5 444.5	4.3 2.7	B154	2227
	p-ethoxy-cis-azobenzene	C	350 439	3.9 3.1	C83	2228
	p-methoxy-trans-azobenzene	A	341.5 430.5	4.4 3.0	B154	2229
		C	351 445	4.4 3.1	C83	2230
		H	338 440	4.4 2.9	B154	2231
		*1	341.5 430.5	4.4 3.0	B154	2232
	p-acetoxy-trans-azobenzene	A	325 440	4.3 2.8	Z3	2233
	2,2'-dihydroxy-trans-azobenzene	C	330 425	4.3 4.2	C83	2234
	3,3'-dihydroxy-trans-azobenzene	A	243 317	4.0 4.2	D2	2235
	4,4'-dihydroxy-cis-azobenzene (α -form)	C	359	4.3	C83	2236
		PE	364	4.5	C83	2237
	4,4'-dihydroxy-cis-azobenzene (β -form)	C	364	4.3	C83	2238
		PE	368	4.5	C83	2239
	2-hydroxy-2'-methoxy-trans-azobenzene	C	320 381	4.0 4.0	C83	2240
	4-hydroxy-4'-methoxy-trans-azobenzene	A	360	4.4	Z3	2241
	2,2'-dimethoxy-trans-azobenzene	C	324 376	3.9 4.0	C83	2242
	4,4'-dimethoxy-cis-azobenzene	C	360 435	3.6 2.9	C83	2243
	4,4'-dimethoxy-trans-azobenzene	C	366 450	4.4 2.8	C83	2244

*1 H₂SO₄

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O ₂ - 6-N:N-6	2,4-dihydroxy-trans-azobenzene	A	380	4.4	B158	2245
		C	376.5	4.4	B158	2246
		H	368	4.4	B158	2247
		*1	252.5 382	3.9 4.3	K2	2248
		*2	255 378	4.1 4.5	K2	2249
		*3	263 435	3.8 4.5	K2	2250
	2-hydroxy-4-methoxy-trans-azobenzene	A	374.5	4.4	B158	2251
		C	374	4.4	B158	2252
		H	376.5	4.4	B158	2253
		*1	256 378	3.8 4.4	K2	2254
		*2	255 378	4.1 4.4	K2	2255
		*3	335 460	4.1 4.2	K2	2256
	4-hydroxy-2-methoxy-trans-azobenzene	A	372	4.4	B158	2257
		C	369	4.4	B158	2258
		H	356.5	4.4	B158	2259
		*1	240 371	4.0 4.3	K2	2260
		*2	255 371	4.1 4.3	K2	2261
		*3	275 448	3.9 4.4	K2	2262
	2,4-dimethoxy-cis-azobenzene	C	373	4.3	C83	2263
	2,4-dimethoxy-trans-azobenzene	A	362	4.3	B158	2264
		C	362.5	4.3	B158	2265
		H	359	4.2	B158	2266

*1 50% A/W *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH/W + 50% A (1:1)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O- 6-N:N-6 -C		*1	244 366	4.1 4.1	K2	2267
		*2	240 368	4.0 4.3	K2	2268
		*3	366	4.1	K2	2269
	2,6-dimethoxy-cis-azobenzene	C	368 455	3.7 3.0	C83	2270
	2,6-dimethoxy-trans-azobenzene	C	368	4.3	C83	2271
	2-hydroxy-4'-methyl-trans-azobenzene	A	323.5 393.5	4.4 4.0	B158	2272
		C	324 394	4.4 4.0	B158	2273
		H	323 393.5	4.4 4.0	B158	2274
	4-hydroxy-4'-methyl-cis-azobenzene	H	304 446	3.9 3.2	B131	2275
	4-hydroxy-4'-methyl-trans-azobenzene	A	351	4.4	B132	2276
		B	347 440	4.4 3.0	B131	2277
		C	347	4.4	B132	2278
		EA	340	4.4	B132	2279
		iO	340	4.4	B132	2280
	2-methoxy-4'-methyl-trans-azobenzene	A	311 360	4.1 3.9	B158	2281
		C	312 361.5	4.1 3.8	B158	2282
		H	309 359	4.1 4.0	B158	2283
OC- 6-N:N-6	2-hydroxy-5-methyl-trans-azobenzene	iP	328	4.3	K56	2284
	4-hydroxy-2-methyl-trans-azobenzene	M	237		S2g	2285
	4-hydroxy-3-methyl-trans-azobenzene	M	240		S2g	2286
OC- 6-N:N-6 -C ₃	4'-hydroxy-2,2',4,6-tetramethyl-cis-azobenzene	B	305 450	3.9 3.2	B131	2287

*1 50% A/W *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH/W + 50% A (1:1)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
OC ₂ - 6-N:N-6 -C ₃	4'-hydroxy-2,2',4,6-tetramethyl-trans-azobenzene	B	348 470	4.3 3.1	B131	2288
	4-hydroxy-2,2',4',6,6'-pentamethyl-cis-azobenzene	B	301 467	3.9 3.3	B131	2289
	4-hydroxy-2,2',4',6,6'-pentamethyl-trans-azobenzene	B	340 470	4.3 3.1	B131	2290
O ₂ - 6-N:N-6 -C	2,4-dihydroxy-2'-methyl-trans-azobenzene	*1	250.5 431	3.9 4.4	K2	2291
		*2	250 385	3.9 4.3	K2	2292
		*3	444	4.6	K2	2293
	2-hydroxy-4-methoxy-2'-methyl-trans-azobenzene	*1	251 387	3.9 4.3	K2	2294
		*2	250 385	3.8 4.3	K2	2295
		*3	335 430	4.0 4.1	K2	2296
	4-hydroxy-2-methoxy-2'-methyl-trans-azobenzene	*1	244.5 372	4.0 4.3	K2	2297
		*2	250 372	3.9 4.2	K2	2298
		*3	266 422	4.0 4.4	K2	2299
	2,4-dimethoxy-2'-methyl-trans-azobenzene	*1	248 365	3.9 4.0	K2	2300
		*2	243 371	3.9 4.3	K2	2301
		*3	248 365	3.9 3.9	K2	2302
O- 6-N:N-6 -N	4-amino-4'-hydroxy-trans-azobenzene		249 386	4.1 4.5	P33	2303
	4-(dimethylamino)-4'-hydroxy-cis-azobenzene	B	335 461	4.0 3.7	B131	2304
	4-(dimethylamino)-4'-hydroxy-trans-azobenzene	B	408	4.5	B131	2305

*1 50% A/W *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH/W + 50% A (1:1)

(6)₂(N:N)(6)₂(N:N)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O- 6 -N:N-6-As	4-acetamido-4'-hydroxy-trans-azobenzene		247	4.1	P33	2306
			368	4.7		
O- 6 -N:N-6-As	4'-hydroxy-trans-azobenzene-4-arsonic acid	*1	355		M13	2307
S- 6 -N:N-6	o-thiocyanato-trans-azobenzene	A	329 440	4.3 2.8	B159	2308
	trans-azobenzene-o-sulfinic acid	*1	322.5 467.5	4.3 2.4	B159	2309
	trans-azobenzene-p-sulfonic acid	A	232 320 439	4.1 4.3 2.9	D2	2310
	trans-azobenzene-o-sulphenyl thiocyanate	B	355	4.2	B159	2311
	trans-azobenzene-o-sulphenyl chloride	A	352	4.3	B159	2312
	trans-azobenzene-o-sulphenyl bromide	A	355	4.2	B159	2313
	trans-azobenzene-o-sulphenyl iodide	B	316.5 582.5	4.3 3.1	B159	2314
		C	305 355 535	4.2 4.3 3.1	B159	2315
	trans-azobenzene-o-sulphenyl perchlorate	A	355	4.2	B159	2316
	4'-(dimethylamino)-trans-azobenzene-2-sulfonic acid	*2	450	4.3	K40	2317
S- 6 -N:N-6-N	4'-(dimethylamino)-trans-azobenzene-3-sulfonic acid	*2	460	4.4	K40	2318
	4'-(dimethylamino)-trans-azobenzene-4-sulfonic acid	*2	465	4.4	K40	2319
	4'-(diethylamino)-trans-azobenzene-4-sulfonic acid	*2	475	4.5	K40	2320
	4'-(dipropylamino)-trans-azobenzene-4-sulfonic acid	*2	480	4.5	K40	2321
	4'-(dimethylamino)-2,2'-dimethyl-trans-azobenzene-4-sulfonic acid	*2	480	4.5	K40	2322
SC- 6 -N:N-6-NC						
S- 6 -N:N-6-O	4'-hydroxy-trans-azobenzene-4-sulfonic acid	*1	357		M14	2323

*1 Na salt/W *2 pH 9.0 solution of Na salt

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
S- 6-N:N-6 -O ₂	2,4-dihydroxy-trans-azobenzene-4'-sulfonic acid	*1	430		M14	2324
F- 6-N:N-6 -N	4'-(dimethylamino)-2-fluoro-trans-azobenzene	*2	321 510	4.2 4.2	C34	2325
	4'-(dimethylamino)-3-fluoro-trans-azobenzene	*2	319 512	3.9 4.6	C34	2326
	4-(dimethylamino)-4'-fluoro-trans-azobenzene	*2	324 520	4.0 4.4	C34	2327
FN- 6-N:N-6	4-(dimethylamino)-2-fluoro-trans-azobenzene	*2	330 512	3.5 4.7	C34	2328
	4-(dimethylamino)-3-fluoro-trans-azobenzene	*2	322 534	4.3 3.5	C34	2329
F ₂ - 6-N:N-6 -N	4'-(dimethylamino)-2,4-difluoro-trans-azobenzene	*2	324 509	4.3 3.8	C34	2330
	4'-(dimethylamino)-2,5-difluoro-trans-azobenzene	*2	321 503	4.1 4.1	C34	2331
	4'-(dimethylamino)-3,4-difluoro-trans-azobenzene	*2	320 513	4.0 4.4	C34	2332
	4'-(dimethylamino)-3,5-difluoro-trans-azobenzene	*2	318 504	3.8 4.6	C34	2333
F ₂ N- 6-N:N-6	4-(dimethylamino)-2,6-difluoro-trans-azobenzene	*2	328 496	3.3 4.7	C34	2334
F ₃ - 6-N:N-6 -N	4'-(dimethylamino)-2,4,6-trifluoro-trans-azobenzene	*2	314 470	4.3 3.6	C34	2335
F ₂ N- 6-N:N-6 -F ₂	4-(dimethylamino)-2,2',5,5'-tetrafluoro-trans-azobenzene	*2	336 502	4.2 3.7	C34	2336
	4-(dimethylamino)-2,2',6,6'-tetrafluoro-trans-azobenzene	*2	324 480	3.3 4.7	C34	2337
Cl- 6-N:N-6	p-chloro-cis-azobenzene	C	332 445	4.1 2.9	C83	2338
	p-chloro-trans-azobenzene	C	327 445	4.3 2.8	C83	2339
Cl- 6-N:N-6 -O	4-chloro-4'-hydroxy-cis-azobenzene	B	305 445	3.9 3.3	B131	2340
	4-chloro-4'-hydroxy-trans-azobenzene	B	350 450	4.4 3.0	B131	2341

*1 Na salt/W *2 acid A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
Cl₂-6-N:N-6 -O	2,4-dichloro-4'-hydroxy-cis-azobenzene	B	311 425	3.9 3.1	B131	2342
	2,4-dichloro-4'-hydroxy-trans-azobenzene	B	334 440	4.2 2.9	B131	2343
Cl₃-6-N:N-6 -ClO	2,2',4,6-tetrachloro-4'-hydroxy-cis-azobenzene	B	305 430	3.9 3.3	B131	2344
	2,2',4,6-tetrachloro-4'-hydroxy-trans-azobenzene	B	342 450	4.2 3.0	B131	2345
Cl₃-6-N:N-6 -OC ₂	2,4,6-trichloro-4'-hydroxy-2',6'-dimethyl-cis-azobenzene	B	334 455	3.9 3.3	B131	2346
	2,4,6-trichloro-4'-hydroxy-2',6'-dimethyl-trans-azobenzene	B	338 460	4.2 3.0	B131	2347
Br-6-N:N-6	p-bromo-cis-azobenzene	C	324 445	4.0 3.1	C83	2348
	p-bromo-trans-azobenzene	C	330 445	4.4 2.9	C83	2349
I-6-N:N-6	p-iodo-cis-azobenzene	C	324 447	4.3 3.3	C83	2350
	p-iodo-trans-azobenzene	C	337 447	4.5 2.9	C83	2351
6-6-N:N-6	p-(phenyl-trans-azo)biphenyl; p-phenyl-trans-azobenzene	H	334.5 450.5	4.5 3.0	B154	2352
6-6-N:N-6 -N	p-(p-dimethylaminophenyl-cis-azo)-biphenyl	B	362 461	4.1 3.7	B131	2353
	p-(p-dimethylaminophenyl-trans-azo)-biphenyl	A	422	4.5	B132	2354
		B	313 413	4.0 4.6	B131	2355
		C	422	4.5	B132	2356
		EA	414	4.5	B132	2357
		10	406	4.6	B132	2358
N-6-6-N:N-6	4-amino-4'-(phenyl-trans-azo)biphenyl	A	260 380	4.1 4.2	D2	2359
N-6-6-N:N-6 -N	4-amino-4'-(p-dimethylaminophenyl-cis-azo)biphenyl	B	345 472	4.2 3.7	B131	2360
	4-amino-4'-(p-dimethylaminophenyl-trans-azo)biphenyl	B	323 426	3.8 4.6	B131	2361

(6)₃(N:N)(6)₃(N:N)₂

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
6-N-N-6-N-N-6	4-acetamido-4'-(p-dimethylaminophenyl-cis-azo)biphenyl	B	360 480	4.1 3.7	B131	2362
	4-acetamido-4'-(p-dimethylaminophenyl-trans-azo)biphenyl	B	320 425	4.0 4.6	B131	2363
	o-bis(phenyl-trans-azo)benzene	A	225 304 445	4.2 4.5 3.0	D2	2364
	m-bis(phenyl-trans-azo)benzene	A	228 320 435	4.4 4.5 3.2	D2	2365
		*1	236 450	3.9 4.4	D2	2366
	p-bis(phenyl-cis-azo)benzene	C	366 400	4.2 3.1	C83	2367
	1-(phenyl-cis-azo)-4-(phenyl-trans-azo)-benzene	C	356	4.3	C83	2368
	p-bis(phenyl-trans-azo)benzene	A	228 359 445	4.2 4.6 3.5	D2	2369
		C	368	4.6	C83	2370
		*1	233 316 502	4.0 3.6 4.7	D2	2371
6-N-N-6-N-N-6 C	2,5-bis(phenyl-trans-azo)toluene	A	230 363 450	4.2 4.6 3.5	D2	2372
6-N-N-6-N-N-6 C ₂	2,5-bis(phenyl-trans-azo)-p-cymene	A	231 368 454	4.2 4.5 3.6	D2	2373
C-6-N-N-6-N-N-6 C	4-(phenyl-trans-azo)-3-(p-tolyl-trans-azo)toluene	A	230 312 430	4.2 4.5 3.1	D2	2374
C-6-N-N-6-N-N-6-C C ₂	2,5-bis(p-tolyl-trans-azo)-p-cymene	A	234 372	4.3 4.7	D2	2375
N-6-N-N-6-N-N-6-N	p-bis(p-aminophenyl-trans-azo)benzene	A	262 474	4.2 4.8	D2	2376

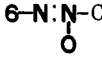
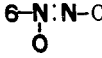


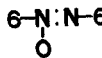


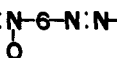
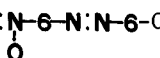
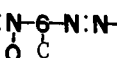

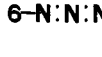
*1 conc. H₂SO₄

$(6)_3(N:N)_2$ $(6)_5(N:N)_4$

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
S- 6-N:N-6-N:N-6-S	p-bis(p-sulfohenyl-trans-azo)benzene	*1	225 365 450	4.3 4.7 3.4	D2	2377
Br- 6-N:N-6-N:N-6-Br	p-bis(p-bromophenyl-trans-azo)benzene	THF	371	4.7	D2	2378
6-N:N-6-6-N:N-6	4,4'-bis(phenyl-cis-azo)biphenyl	C	360 442	4.5 3.8	C83	2379
	4-(phenyl-cis-azo)-4'-(phenyl-trans-azo)-biphenyl	C	363 442	4.5 4.1	C83	2380
	4,4'-bis(phenyl-trans-azo)biphenyl	A	230 364	4.3 4.7	D2	2381
		C	369	4.7	C83	2382
		*2	244 512	4.1 4.9	D2	2383
$(6)_4(N:N)_3$	3,3'-bis(phenyl-trans-azo)-trans-azo-benzene	A	228 320 433	4.3 4.7 3.4	D2	2384
		*2	234 441	4.0 4.6	D2	2385
	4,4'-bis(phenyl-trans-azo)-trans-azo-benzene	A	228 380	4.4 4.8	D2	2386
		*2	232 355 560	4.1 3.9 4.9	D2	2387
$(6)_4(N:N)_3-N_2$	4,4'-bis(p-aminophenyl-trans-azo)-trans-azobenzene	THF	490	4.8	D2	2388
$(6)_5(N:N)_4$	p-bis[p-(phenyl-trans-azo)phenyl-trans-azo]benzene	THF	400	4.8	D2	2389
		*2	230 320 393 604	4.3 4.0 4.1 4.9	D2	2390
$(6)_5(N:N)_4-C$	2,5-bis[p-(phenyl-trans-azo)phenyl-trans-azo]toluene	A	225 310 402	4.4 4.2 4.8	D2	2391
$(6)_5(N:N)_4-C_2$	2,5-bis[p-(phenyl-trans-azo)phenyl-trans-azo]-p-cymene	A	315 405	4.4 4.9	D2	2392

*1 K salt/A *2 conc. H_2SO_4

(6)₅(N:N)₄(6)(N:N:N)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	230 320 400 607	4.2 3.8 4.1 4.8	D2	2393
(6) ₅ (N:N) ₄ -N ₂	p-bis[p-(p-aminophenyl-trans-azo)phenyl-trans-azo]benzene	THF	500	4.9	D2	2394
	p-chloro- α -(phenyl-trans-azoxy)toluene	A	292	4.1	B142	2395
	(p-chlorobenzyl-cis-azoxy)benzene	A	254	4.1	B142	2396
	(p-chlorobenzyl-trans-azoxy)benzene	A	249	4.1	B142	2397
Br- 	α -(p-bromophenyl-trans-azoxy)-p-chloro-toluene	A	299.5	4.3	B142	2398
Br- 	1-bromo-4-(p-chlorobenzyl-cis-azoxy)-benzene	A	264	4.1	B142	2399
	1-bromo-4-(p-chlorobenzyl-trans-azoxy)-benzene	A	260.5	4.2	B142	2400
	cis-azoxybenzene	A	335	3.9	C2	2401
	trans-azoxybenzene	A	231 261 323	3.9 3.9 4.2	B30	2402
C- 	2,2'-trans-azoxytoluene	A	235 311	4.0 3.9	B30	2403
O- 	4,4'-dimethoxy-trans-azoxybenzene	D	242 355	4.0 4.4	G23s	2404
	p-(phenylazoxy)azobenzene	A	225 350	4.2 4.5	D2	2405
	2-methyl-4'-(phenylazoxy)azobenzene		225 360	4.5 4.5	D2	2406
	2-methyl-4-(phenylazoxy)azobenzene	A	228 350	4.3 4.5	D2	2407
(6) ₄ (N:N)(N:N) ₂ 	4,4'-bis(phenylazo)azoxybenzene	THF	390	4.8	D2	2408
	azidobenzene	A	250 285		B53	2409
N:N-N-6-N:N-N	m-diazidobenzene	A	244 290	4.4 3.3	B53	2410

*1 conc. H₂SO₄

PART 17. (6)(N:C)-SYSTEM

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
6-C:N N	benzamidine	7.0	229 268	4.0 2.9	M18	2411
		13.0	228	3.9	M18	2412
		*1	no		M18	2413
	N-phenylbenzamidine	*2	234	4.3	C90	2414
	N,N-diphenylbenzamidine	*2	225 270	4.2 3.8	C90	2415
S-6-C:N N	p-amidinophenyl disulfide dihydrochloride		280-4	4.4	B43	2416
6-C:N O	ethyl benzimidate	M	227 270	4.0 2.8	L20	2417
S-6-C:N O	ethyl 4,4'-disulfidodibenzimidate	*3	271-5	4.3	B43	2418
	ethyl 4,4'-disulfidodibenzimidate S,S'-dioxide		249.5	4.4	B43	2419
		*3	246-8	4.4	B43	2420
6-C:N-C	(methylimino)toluene; benzaldehyde methylimide	A	247	4.2	M3n	2421
O-6-C:N-C	o-(butyliminomethyl)phenol; salicyl- aldehyde butylimide	A	255 315	5.0 4.5	G19	2422
6-C:N-C N	N'-methyl-N-phenylbenzamidine	*2	270	3.9	C90	2423
6-C:N-N	benzaldehyde hydrazone	M	273	4.1	B84	2424
	benzaldehyde benzylhydrazone	A	246 290	3.6 4.2	V9	2425
	benzaldehyde phenylhydrazone	M	235 303 342	4.1 4.0 4.3	B84	2426
	benzaldehyde p-bromophenylhydrazone	M	235 315 347	4.1 4.2 4.4	B84	2427
	benzaldehyde m-nitrophenylhydrazone	M	238 334	4.3 4.5	B84	2428

*1 monohydrochloride *2 0.1N HCl/A *3 dihydrochloride

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	benzaldehyde N-methyl-p-nitrophenyl-hydrazone	M	230 299 403	4.2 4.0 4.5	B84	2429
	benzaldehyde 2,4-dinitrophenylhydrazone	A	223 253 377	4.4 4.1 4.5	B120	2430
		C	255 377	4.2 4.5	B120	2431
		*1	462	4.5	J26	2432
	benzaldehyde N-methyl-2,4-dinitrophenyl-hydrazone	M	290 401	4.0 4.3	B84	2433
	benzaldehyde acetylhydrazone	M	283	4.4	B84	2434
	benzaldehyde benzoylhydrazone	M	297	4.4	B84	2435
	benzaldehyde semicarbazone	M	282	4.3	B84	2436
		1.0	249	4.1	C32	2437
		*2	278	4.3	C32	2438
	benzaldehyde 2,4-dinitrophenylsemi-carbazone	A	272.5 314.5	4.4 4.3	G11	2439
	benzaldehyde thiosemicarbazone	M	310		B84	2440
	benzaldehyde N-methylthiosemicarbazone	M	312	4.6	B84	2441
	benzaldehyde N-methyl-[C-imino-C-(methylthio)methyl]hydrazone	M	300	4.4	B84	2442
N-6-C:N-N	p-aminobenzaldehyde thiosemicarbazone		342	4.6	L16	2443
	p-(dimethylamino)benzaldehyde 2,4-dinitrophenylhydrazone	C	322 434		J26	2444
		*1	342 478		J26	2445
	p-acetamidobenzaldehyde thiosemicarbazone		328	4.7	L16	2446
O-6-C:N-N	o-hydroxybenzaldehyde 2,4-dinitrophenylhydrazone	*1	475	4.5	J26	2447
	p-hydroxybenzaldehyde 2,4-dinitrophenylhydrazone	C	381	4.5	J26	2448

*1 0.2N NaOH/A + C (9:1) *2 pH 2.6-11.0

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$O_2-C:N-N$	p-methoxybenzaldehyde p-methoxybenzyl-hydrazone	A	245 286	3.6 4.4	V9	2449
	p-methoxybenzaldehyde 2,4-dinitrophenyl-hydrazone	C	390	4.5	J26	2450
		*1	270 460	4.5	J26	2451
	vanillaldehyde 2,4-dinitrophenyl-hydrazone	A	398		B70	2452
$C-C:N-N$		*2	493		B70	2453
	acetophenone p-nitrophenylhydrazone	A	290 319 402	3.9 3.6 4.5	H86	2454
	acetophenone 2,4-dinitrophenylhydrazone	A	218 265 377	4.4 4.3 4.4	B120	2455
		C	256 280 380	4.2 4.1 4.4	B120	2456
$C-C:N-N$	acetophenone N-methyl-2,4-dinitrophenyl-hydrazone	M	389	4.3	B84	2457
	1,4,5,6-tetrahydro-3-phenyl-6-pyrid-azinone	A	284	4.0	D21	2458
	acetophenone 2,4-dinitrophenylsemi-carbazone	A	265 317.5	4.4 4.3	G11	2459
	1-indanone p-nitrophenylhydrazone	A	295 326 416	3.8 3.8 4.5	H86	2460
$C-C:N-N$	1,2,3,4-tetrahydro-1-naphthalenone p-nitrophenylhydrazone	A	297 323 412	3.9 3.7 4.5	H86	2461
	1,2-benzocyclohepten-5-one p-nitrophenylhydrazone	A	280 316 398	3.9 3.5 4.4	H86	2462
	1,2-benzocycloocten-5-one p-nitrophenylhydrazone	A	247 388	4.0 4.4	H86	2463
	p-methylacetophenone 2,4-dinitrophenylhydrazone	C	382	4.4	J26	2464
		*1	458	4.4	J26	2465

*1 0.2N NaOH/A + C (9:1) *2 alkaline A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	p-benzylacetophenone 2,4-dinitrophenylhydrazone	A	381	4.6	S87	2466
	1-indanone 2,4,6-trinitrophenylhydrazone	D	390.5	4.4	H86	2467
	1,2,3,4-tetrahydro-1-naphthalenone 2,4,6-trinitrophenylhydrazone	D	390.5	4.4	H86	2468
	1,2-benzocyclohepten-5-one 2,4,6-trinitrophenylhydrazone α -isomer	D	379	4.3	H86	2469
	1,2-benzocyclohepten-5-one 2,4,6-trinitrophenylhydrazone β -isomer	D	368	4.3	H86	2470
	1,2-benzocycloocten-5-one 2,4,6-trinitrophenylhydrazone α -isomer	D	368	4.3	H86	2471
	1,2-benzocycloocten-5-one 2,4,6-trinitrophenylhydrazone β -isomer	D	363	4.3	H86	2472
$C_2-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\text{N}-\text{N}$	2,4-dimethylacetophenone 2,4-dinitrophenylhydrazone	C	376	4.4	J26	2473
		*1	458	4.4	J26	2474
$O-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\text{N}-\text{N}$	p-phenoxyacetophenone 2,4-dinitrophenylhydrazone	A	383	4.4	S87	2475
$S-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\text{N}-\text{N}$	p-phenylthioacetophenone 2,4-dinitrophenylhydrazone	A	384	4.5	S87	2476
	p-(phenylsulfinyl)acetophenone 2,4-dinitrophenylhydrazone	A	372	4.5	S87	2477
	p-(phenylsulfonyl)acetophenone 2,4-dinitrophenylhydrazone	A	373	4.4	S87	2478
$\overset{\text{C}}{\underset{\text{N}}{\text{C}}}:\text{N}-\text{N}$	3-phenyl-1,2,4-triazol-2-ine	A	241.5	4.1	A38	2479
		*2	257	4.1	A38	2480
	3,5-diphenyl-1,2,4-triazol-2-ine	A	255	4.4	A38	2481
		*2	276	4.3	A38	2482
$O-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\text{N}-O$	salicylaldehyde oxime	A	265 305	3.8 3.6	A38	2483
$\overset{\text{C}}{\underset{\text{C}}{\text{C}}}:\text{N}-O$	acetophenone oxime	A	240	4.0	L23	2484
	α -hydroxy- α -phenylacetophenone oxime; benzoin oxime	M	no		S2g	2485

*1 0.2N NaOH/A + C (9:1) *2 KOH/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{C}-\underset{\text{C}}{\overset{\text{C}}{\text{C}}}-\text{N}-\text{O}$	1-indanone oxime	A	253	4.1	H83	2486
	1,2,3,4-tetrahydro-1-naphthalenone	A	255	4.1	H83	2487
	1,2-benzocyclohepten-5-one oxime	A	237	4.0	H83	2488
	1,2-benzocycloocten-5-one oxime	A	no		H83	2489
6-N:C-C_2	3-(phenylimino)pentane		280	3.3	R2x	2490
6-N:C-N	N,N'-diphenylformamidine	Hp	276	4.3	R17	2491
$\text{C}-\text{6-N:C-NC}$	2-amino-3H-indole	E	215 268	4.3 4.1	K24	2492
		*1	265	4.1	K24	2493
		*2	258	3.9	K24	2494
$\text{C}-\underset{\text{C}}{\overset{\text{C}}{\text{C}}}-\text{N:C-NC}$	2-amino-1-methyl-3H-indolium chloride		256	4.0	K24	2495
6-N:C-O	ethyl N-phenylformimidate	Hp	245	3.8	R17	2496
6-N:C-N:C-N_2 N	N-isopropyl-N''-(N'-phenylamidino)- guanidine		236	4.1	G1	2497
		*3	245	4.1	G1	2498
6-C:N	benzophenone imide	M	275.5	4.2	K3	2499
$\text{C}-\underset{\text{6}}{\overset{\text{6}}{\text{C}}}-\text{C:N}$	p-methylbenzophenone imide	M	285.5	4.2	K3	2500
$\text{C}-\underset{\text{C-6}}{\overset{\text{6}}{\text{C}}}-\text{C:N}$	2,2'-dimethylbenzophenone imide	A	246	4.3	P15	2501
	2,3'-dimethylbenzophenone imide	A	253	4.0	P15	2502
	2,4'-dimethylbenzophenone imide	A	260	4.1	P15	2503
	3,3'-dimethylbenzophenone imide	A	250	4.1	P15	2504
	3,4'-dimethylbenzophenone imide	A	258	4.1	P15	2505
	4,4'-dimethylbenzophenone imide	A	258	4.2	P15	2506
$\text{N}-\underset{\text{N-6}}{\overset{\text{6}}{\text{C}}}-\text{C:N}$	4,4'-bis(dimethylamino)benzophenone imide	A	360 423	4.4 4.4	B125	2507
		*4	365 425	4.3 4.8	B125	2508

*1 50% M with 0.1M NaOH *2 monohydrochloride *3 univalent ion

*4 hydrochloride (Auramin)

(6)₂(N:C)(6)₂(N:C)₂

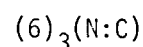
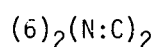
system	compound	solv.	λ _{max.}	logε	ref.	no.
$\begin{array}{c} 6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{N}$	benzophenone hydrazone	A	270-2	4.1	S85	2509
	benzophenone 2,4-dinitrophenylhydrazone	A	243 379	4.3 4.4	B120	2510
		C	242 391	4.3 4.3	B120	2511
		*1	300 490	4.4	J26	2512
$\begin{array}{c} \text{C}-6 \\ \diagup \\ \text{C}-6 \end{array} > \text{C} : \text{N} - \text{N}$	4,4'-dimethylbenzophenone hydrazone	A	276.5	4.3	S85	2513
$\begin{array}{c} \text{N}-6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{N}$	p-(dimethylamino)benzophenone hydrazone	A	233.5 340.5	4.2 4.3	S85	2514
$\begin{array}{c} \text{O}-6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{N}$	p-phenoxybenzophenone hydrazone	A	277-81	4.4	S85	2515
$\begin{array}{c} \text{S}-6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{N}$	p-phenylsulfonylbenzophenone hydrazone	A	245	4.5	S85	2516
$\begin{array}{c} \text{Cl}-6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{N}$	p-chlorobenzophenone hydrazone	A	270	4.1	S85	2517
$\begin{array}{c} \text{Cl}-6 \\ \diagup \\ \text{Cl}-6 \end{array} > \text{C} : \text{N} - \text{N}$	4,4'-dichlorobenzophenone hydrazone	A	247 275	4.1 4.3	S85	2518
$\begin{array}{c} 6 \\ \diagup \\ 6 \end{array} > \text{C} : \text{N} - \text{O}$	benzophenone oxime		254	4.0	R3c	2519
6-N:C-6	(phenylimino)toluene; benzylideneaniline	A	263	4.2	F15	2520
N-6-N:C-6	(o-aminophenylimino)toluene	M	261 367	4.2 3.8	B87	2521
	[o-(dimethylamino)phenylimino]toluene	A	248	4.2	K31	2522
6-N:C-6-O	(p-methoxybenzylidene)aniline		223 285	4.2 4.2	B59	2523
$\begin{array}{c} 6-\text{N}:\text{C}-6 \\ \text{N} \end{array}$	N,N'-diphenylbenzamidine	*2	273	4.1	C90	2524
$\begin{array}{c} 6-6-\text{C}:\text{N}-\text{N} \\ \text{C} \end{array}$	p-phenylacetophenone 2,4-dinitrophenylhydrazone	A	382	4.1	S88	2525
	3-(p-biphenyl)-4-methylamino-1,5-diphenyl-2-pyrazoline	10	375	4.5	C110	2526
6-C:N-N:C-6	dibenzylidenehydrazine; benzaldehyde azine	A	213 301	4.2 4.6	F16	2527

*1 0.2N NaOH/A+C(9:1)

*2 0.1N HCl/A

(6)₂(N:C)₂(6)₂(N:C)₂

system	compound	solv.	λ _{max} .	logε	ref.	no.
N-6-C:N-N:C-6-N	bis[p-(dimethylamino)benzylidene]-hydrazine	A	322 400	4.0 4.8	B26	2528
O-6-C:N-N:C-6-O	bis(o-hydroxybenzylidene)hydrazine; salicylaldehyde azine	A	295 355	4.4 4.4	B77	2529
	bis(m-hydroxybenzylidene)hydrazine	A	300 ~325	4.5 4.4	B77	2530
	bis(p-hydroxybenzylidene)hydrazine	A	335	4.6	B77	2531
	bis(o-methoxybenzylidene)hydrazine	A	293 340	4.1 4.3	B77	2532
	bis(p-methoxybenzylidene)hydrazine	A	229 331	4.2 4.7	F16	2533
	bis(o-acetoxybenzylidene)hydrazine	A	303	4.5	F15	2534
	bis(p-acetoxybenzylidene)hydrazine	A	308	4.6	F15	2535
O ₂ -6-C:N-N:C-6-O ₂	bis(2,4-dihydroxybenzylidene)hydrazine	A	307 367	4.1 4.6	B26	2536
	bis(4-hydroxy-3-methoxybenzylidene)-hydrazine	A	347	4.6	B26	2537
	bis(3,4-dimethoxybenzylidene)hydrazine	A	343	4.6	B26	2538
Cl-6-C:N-N:C-6-Cl	bis(o-chlorobenzylidene)hydrazine	A	307	4.6	B26	2539
	bis(m-chlorobenzylidene)hydrazine	A	300 315	4.6 4.5	B26	2540
	bis(p-chlorobenzylidene)hydrazine	A	310 322	4.6 4.6	B26	2541
Br-6-C:N-N:C-6-Br	bis(p-bromobenzylidene)hydrazine	A	221 311.5	4.1 4.6	P16	2542
6-C:N-N:C-6	1-benzylidene-2-(α-methylbenzylidene)-hydrazine	A	278	4.5	B75	2543
6-C:N-N:C-6	bis(α-methylbenzylidene)hydrazine; acetophenone azine	A	267 ~295	4.4 4.3	B75	2544
C-6-C:N-N:C-6-C	bis(1,2,3,4-tetrahydro-1-naphthylidene)-hydrazine	A+D	275 305	4.3 4.3	B75	2545
	bis(p-benzyl-α-methylbenzylidene)-hydrazine	A	276	4.4	S88	2546
N-6-C:N-N:C-6-N	bis(p-amino-α-methylbenzylidene)-hydrazine	A	333	4.5	B75	2547



system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$O-\underset{\underset{C}{ }}{6}-\underset{\underset{C}{ }}{C}:N:N:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{6}-O$	bis(o-hydroxy- α -methylbenzylidene)-hydrazine	A+W	293 362	4.2 4.1	B75	2548
	bis(m-hydroxy- α -methylbenzylidene)-hydrazine	A+W	268	4.3	B75	2549
	bis(p-hydroxy- α -methylbenzylidene)-hydrazine	A+W	303	4.4	B75	2550
	bis(p-ethoxy- α -methylbenzylidene)-hydrazine	D	303	4.4	B75	2551
	bis(α -methyl-p-phenoxybenzylidene)-hydrazine		292	4.4	S87c	2552
$S-\underset{\underset{C}{ }}{6}-\underset{\underset{C}{ }}{C}:N:N:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{6}-S$	bis(α -methyl-p-phenylthiobenzylidene)-hydrazine	A	241 258 320	4.5	S87c	2553
	bis(α -methyl-p-phenylsulfinylbenzylidene)hydrazine	A	291	4.5	S87c	2554
	bis(α -methyl-p-phenylsulfonylbenzylidene)hydrazine	A	289	4.6	S87c	2555
$Br-\underset{\underset{C}{ }}{6}-\underset{\underset{C}{ }}{C}:N:N:\underset{\underset{C}{ }}{C}-\underset{\underset{C}{ }}{6}-Br$	bis(p-bromo- α -methylbenzylidene)-hydrazine	A	279	4.5	F16	2556
$O-\underset{\underset{C}{ }}{6}-N:C-C:N-\underset{\underset{C}{ }}{6}-O$	bis(p-hydroxyphenylimino)ethane	A	236 301 388	4.2 2.8 4.0	F16	2557
	bis(p-methoxyphenylimino)ethane	A	236 300 382	4.2 3.8 4.0	F16	2558
$Br-\underset{\underset{C}{ }}{6}-N:C-C:N-\underset{\underset{C}{ }}{6}-Br$	bis(p-bromophenylimino)ethane	A	254 299-302	4.5 3.3	F16	2559
$\underset{\underset{C}{ }}{6}-N:C-C:N-\underset{\underset{C}{ }}{6}$	2,3-bis(phenylimino)butane	A	228 331	4.4 3.5	F16	2560
$Br-\underset{\underset{C}{ }}{6}-N:C-C:N-\underset{\underset{C}{ }}{6}-Br$	2,3-bis(p-bromophenylimino)butane	A	236 336	4.6 3.7	F16	2561
$(6)_2-(N:C)_4$	bis(benzylidenehydrazono)ethane	A	320	4.6	B26	2562
$\underset{\underset{C}{ }}{6}-N:C-\underset{\underset{C}{ }}{6}-N$	4,4'-bis(dimethylamino)benzophenone phenylimide	A	360	4.7	B125	2563
		*1	358 422	4.3 4.5	B125	2564

*1 hydrochloride (N-phenylauramine)

(6)₃(N:C)

(6)(N:C)(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{6-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N}$	p-phenylbenzophenone hydrazone	A	293	4.4	S85	2565
$\text{6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C-6}$	benzophenone benzylidenehydrazone	A+W	273	4.3	B73	2566
6-C:N-6-N:C-6	m-bis(benzylideneamino)benzene	A	267	4.5	F15	2567
	p-bis(benzylideneamino)benzene	A	347	4.4	F15	2568
$\text{6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6} \end{array}$	bis(diphenylmethylene)hydrazine; benzophenone azine	A	277-8	4.3	S85	2569
		E	278 ~310	4.3 4.1	B75	2570
$\text{C-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-C} \end{array}$	bis[o-methyl- α -(p-tolyl)benzylidene]- hydrazine	A	319	4.4	S85	2571
	bis[di(p-tolyl)methylene]hydrazine	A	276-7 331-4	4.5 4.3	S85	2572
$\text{N-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-N} \end{array}$	bis[p-(dimethylamino)- α -phenylbenzyl- idene]hydrazine	A	260-3 315-7 357-8	4.4 4.3 4.4	S85	2573
$\text{N-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-N} \end{array}$	bis[bis(p-dimethylaminophenyl)methylene]- hydrazine	A	241 265-6	4.5 4.5	S85	2574
$\text{O-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-O} \end{array}$	bis(p-phenoxy- α -phenylbenzylidene)- hydrazine	A	271	4.4	S85	2575
$\text{S-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-S} \end{array}$	bis(α -phenyl-p-phenylthiobenzylidene)- hydrazine	A	253	4.5	S85	2576
	bis(α -phenyl-p-phenylsulfonylbenzyl- idene)hydrazine	A	247 295	4.7 4.5	S85	2577
$\text{Cl-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-Cl} \end{array}$	bis(p-chloro- α -phenylbenzylidene)- hydrazine	A	280	4.3	S85	2578
$\text{Cl-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-Cl} \end{array}$	bis[bis(p-chlorophenyl)methylene]- hydrazine	A	248 281 322-3	4.5 4.3 4.3	S85	2579
$\text{6-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-6} \end{array}$	bis(α -methyl-p-phenylbenzylidene)- hydrazine	A	~300	4.1	S88	2580
$\text{6-6} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N:C} \begin{array}{c} \diagdown \\ \text{6-6} \end{array}$	bis[α -(p-biphenyl)benzylidene]hydrazine	A	262	4.3	S85	2581
$\text{N-N} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:C-C}$	4,4-dimethyl-2-phenyl-2-cyclohexen-1-one 2,4-dinitrophenylhydrazone	A	380	4.8	B96	2582
$\text{C-C} \begin{array}{c} \diagup \\ \text{C} \end{array} \text{:N-N}$	1-benzoyl-6-phenylcyclohexene 2,4-di- nitrophenylhydrazone		380	4.4	P1	2583

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N- 6-C:C-C:C-N -C ₂ S	3-ethyl-2-[p-(dimethylamino)styryl]-2-thiazolinium iodide		477		B135	2584
6-C:C-C:C-N -N	cinnamaldehyde 2,4-dinitrophenylhydrazone	C	308 390	4.6	J26	2585
		*1	486	4.6	J26	2586
	cinnamaldehyde 2,4-dinitrophenylsemi-carbazone	A	322	4.7	G11	2587
O ₂ - 6-C:C-C:C-N -N	4-hydroxy-3-methoxycinnamaldehyde 2,4-dinitrophenylhydrazone	A	408.5		B70	2588
		*2	510		B70	2589
6-C:C-C:C-N -N C	4-phenyl-3-buten-2-one 2,4-dinitrophenylhydrazone	C	306 392	4.6	J26	2590
		*1	288 488	4.6	J26	2591
	4-phenyl-3-buten-2-one 2,4-dinitrophenylsemicarbazone	A	315	4.6	G11	2592
6-C:C-C:C-N -N C C C	1-phenyl-2-(phenylacetyl)cyclohexene 2,4-dinitrophenylhydrazone		373	4.3	P1	2593
O ₃ - 6-C:C-C:C-N -N C C C	2-(methoxycarbonylmethyl)-3-(2,3,4-trimethoxyphenyl)-2-cyclohexene-1-one 2,4-dinitrophenylhydrazone	C	388	4.5	L28	2594
6-N:C-C:C-C -N	N-(3-anilinoallylidene)aniline hydrochloride [β -anilinoacrolein anil hydrochloride]	M	382.5	4.7	B141	2595
6-N:C-C:C-C -O O	N-(3-benzoyloxy-2-hydroxyallylidene)-aniline	A	323	4.6	C69	2596
	N-(2,3-dibenzoyloxyallylidene)aniline	A	229 325	4.4 4.5	C69	2597
6-N:C-C:C-C:C-C -N	N-(5-anilino-2,4-pentadienylidene)-aniline hydrochloride; glutaconaldehyde dianilide hydrochloride	M	485	4.8	B141	2598
6-N:C-C:C-C:C-C -N C	N-methyl-N-[5-(N-methylanilino)-2,4-pentadienylidene]aniline hydrochloride; glutaconaldehyde bis-N-methylanilide	M	449	4.9	B141	2599
6-C:C-C:C-N -N 6	1,3-diphenyl-2-propen-1-one 2,4-dinitrophenylhydrazone	A	395	4.6	R18	2600

*1 0.2N NaOH/A+C(9:1)

*2 alkaline A

(6)₂(N:C)(C:C)(6)₄(N:C)(N:N)

system	compound	solv.	λ _{max} .	logε	ref.	no.
		C	310 399	4.6	J26	2601
		*1	290 508	4.5	J26	2602
$\begin{array}{c} \text{C} \quad \text{C} \\ \quad \\ \text{C}-\text{C}:\text{C} \\ \quad \\ \text{C}-\text{C} \end{array} > \text{C}:\text{N}-\text{N}$	1'-semicarbazono-1,1',2,2',3,3',4,4'-octahydro-1,2'-binaphthylidene	A	276	4.3	F49	2603
$\text{N}-\text{N}:\text{C}-\text{C}-\text{C}:\text{C} \\ \quad \\ \text{O}_2$	4,5-methylenedioxy-3'-vinylbiphenyl-2-carboxaldehyde 2,4-dinitrophenyl hydrazone	C	396	4.5	W4	2604
6-N:C-C:C-6	cinnamylideneaniline	A	304 325	4.5 4.4	B26	2605
N-6-N:C-C:C-6	cinnamylidene-o-diaminobenzene	M	298 385	4.4 4.0	B87	2606
6-N:C-C:C-C:C-6	N-(5-phenyl-2,4-pentadienylidene)aniline	A	341	4.6	F15	2607
6-C:N-N:C-C:C-6	1-benzylidene-2-cinnamylidenehydrazine	A	338	4.7	B113	2608
(6) ₂ (N:C) ₂ (C:C) ₂	dicinnamylidenehydrazine	A	352	4.8	B77	2609
(6) ₂ (N:C) ₂ (C:C) ₂ -C ₂	bis(α-methylcinnamylidene)hydrazine	A	322	4.7	B28	2610
(6) ₂ (N:C) ₂ (C:C) ₃	1-cinnamylidene-2-(5-phenyl-2,4-pentadienylidene)hydrazine	A	377	4.9	F15	2611
(6) ₂ (N:C) ₂ (C:C) ₄	bis(5-phenyl-2,4-pentadienylidene)-hydrazine	A	385	4.9	B26	2612
(6) ₃ (N:C) ₂ (C:C) ₂	p-bis(cinnamylideneamino)benzene	A	373	4.7	F15	2613
(6) ₃ (N:C) ₂ (C:C) ₄	p-bis(5-phenyl-2,4-pentadienylidene-amino)benzene	A	380	4.8	F15	2614
6-C:N-6-6-N:N-6	4-(benzylideneamino)-4'-phenyl-trans-azobiphenyl	THF	364	4.6	D2	2615

*1 0.2N NaOH/A+C(9:1)

PART 18. (6)(N:C)-, (6)(N:C:C)-, AND (6)(P:P)-SYSTEM

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
6-C:N	benzonitrile		224 271	4.1 3.0	D33	2616
C-6-C:N	o-tolunitrile	cH	224.5 281	4.0 3.2	S2g	2617
		W	228.5 276.5	4.0 3.2	D35	2618
	m-tolunitrile	cH	225.5 282	4.0 3.1	S2g	2619
		W	229.5 276	4.0 3.1	D35	2620
	p-tolunitrile	iO	229 265	4.2 2.5	S2g	2621
		*1	234 268	4.2 2.9	D33	2622
N-6-C:N	m-aminobenzonitrile	8.0	216 236.5 308	4.5 3.9 3.4	D35	2623
	p-aminobenzonitrile	*2	223 270	4.2 3.0	D33	2624
		*3	212 270	4.1 4.3	D33	2625
O-6-C:N	o-hydroxybenzonitrile	6.0	200.5 231 294.5	4.6 4.0 3.6	D35	2626
		11.0	211.5 240 324.5	4.5 3.9 3.8	D35	2627
	o-methoxybenzonitrile	M	278		S2g	2628
S-6-C:N	p-cyanophenyl disulfide		267-73	4.4	B43	2629
	p-cyanophenyl disulfoxide		243-4	4.4	B43	2630
Cl-6-C:N	p-chlorobenzonitrile	*1	237.5 269.5	4.3 2.9	D33	2631
⁶ N:C>C:C-C₂	2-cyclopentylidene-2-phenylacetonitrile	A	258	4.0	J1	2632

*1 0.1N NaOH/W *2 2N HCl *3 1N NaOH/W

(6)(N:C)(C:C)

(6)₂(P:P)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
N:C-6-C:C	p-vinylbenzonitrile	C	258	4.2	L0n	2633
6-C:C-C:N	cis-cinnamitrile		273	4.2	P1	2634
	trans-cinnamitrile		272	4.4	P1	2635
6-C:C-C:N C C	1-cyano-2-phenylcyclohexene		251	4.0	P1	2636
6-C:C-6 N:C	α -phenyl-cis-cinnamitrile	A	227 312	4.3 4.4	C71	2637
	α -phenyl-trans-cinnamitrile	A	224 295	4.4 4.2	C71	2638
6-C:C-6 N:C	β -methoxy- α -phenylcinnamitrile	A	283	4.2	R41	2639
Cl-6-C:C-6 N:C	α -(p-chlorophenyl)-cis-cinnamitrile	A	232 316	4.2 4.4	C71	2640
	α -(p-chlorophenyl)-trans-cinnamitrile	A	234 295	4.4 4.2	C71	2641
Cl-6-N:N-C:N	p-chlorobenzenediazocyanide (stable form)	E	338 438	4.3 2.5	L7	2642
	p-chlorobenzenediazocyanide (unstable form)	E	330 432	4.1 3.1	L7	2643
Br-6-N:N-C:N	p-bromobenzenediazocyanide	A	238 341 425	4.1 4.5 2.8	F44	2644
6-N:C	isocyanobenzene	H	275	3.0	B113	2645
C-6-N:C:C-6 6	1,1-diphenyl-2-(p-tolylimino)ethylene	A	270 358	4.5 3.1	S70	2646
6-P:P-6	phosphorobenzene		244	4.4	P41	2647

PART 19. (6)(O:C)-SYSTEM

system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
6-C:O	benzaldehyde	A	240 278 320	4.1 3.0 1.7	L13	2648
		AA	250	4.0	T6	2649
		M	244	4.1	T6	2650
		*1	250	4.1	T6	2651
C ₃ - 6-C:O	2,4,6-trimethylbenzaldehyde	A	265	4.1	L11	2652
C ₄ - 6-C:O	2,3,4,6-tetramethylbenzaldehyde	A	267	4.1	L11	2653
N- 6-C:O	p-(dimethylamino)benzaldehyde	A	241 342	3.9 4.5	K77	2654
	p-acetamidobenzaldehyde	M	292	3.4	L16	2655
O- 6-C:O	salicylaldehyde	A	255 325	4.0 3.5	M56	2656
		V	251.5 320		M56	2657
		*2	261 379	3.9 3.7	M56	2658
	m-hydroxybenzaldehyde	A	254 316	3.9 3.5	M56	2659
		V	239 296 332		M56	2660
		*2	239 321	4.1 3.3	M56	2661
	p-hydroxybenzaldehyde	A	221 284	4.1 4.2	M56	2662
		V	252		M56	2663
		*2	240 329	3.8 4.4	M56	2664
	o-methoxybenzaldehyde	A	253 319.5	4.1 3.6	M56	2665

*1 H₂SO₄ + AA (2 vol. : 8 vol.) *2 1 equiv. NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		V	238.5 299		M56	2666
	m-methoxybenzaldehyde	A	252.5 314.5	3.9 3.5	M56	2667
		V	240 296.5		M56	2668
	p-methoxybenzaldehyde	A	219 277	4.1 4.2	M56	2669
$\text{O}_2\text{-}\text{C}_6\text{H}_4\text{-C(=O)H}$	2,4-dihydroxybenzaldehyde	A	318	3.9	L10	2670
		*1	334	4.5	L10	2671
	4-hydroxy-3-methoxybenzaldehyde; vanillaldehyde	A	275 310	4.0 4.0	L10	2672
		*1	353	4.5	L10	2673
$\text{O}_3\text{-}\text{C}_6\text{H}_3\text{-C(=O)H}$	4-hydroxy-3,5-dimethoxybenzaldehyde; syringaldehyde	A	230.5 308	4.2 4.1	L10	2674
		*1	370	4.4	L10	2675
$\text{OC}_2\text{-}\text{C}_6\text{H}_4\text{-C(=O)H}$	4-hydroxy-2,6-dimethylbenzaldehyde	A	286	4.3	B157	2676
	4-hydroxy-3,5-dimethylbenzaldehyde	A	290	4.2	B157	2677
	4-methoxy-2,6-dimethylbenzaldehyde	A	284	4.3	B157	2678
	4-methoxy-3,5-dimethylbenzaldehyde	A	265	4.2	B157	2679
$\text{S-}\text{C}_6\text{H}_4\text{-C(=O)H}$	p-sulfobenzaldehyde	M	248.5 286.5		S2g	2680
$\text{BrO-}\text{C}_6\text{H}_4\text{-C(=O)H}$	5-bromo-2-hydroxybenzaldehyde	M	240 278 337	3.7 2.0 3.5	V0n	2681
$\text{C}_6\text{H}_5\text{-C(=O)H}$	acetophenone	A	199 240 278 320	4.3 4.1 3.0 1.7	H63n	2682
		Hp	238 279 320	4.1 3.0 1.6	T1	2683
		W	245 278 ~ 320	4.1 3.1	T1	2684

*1 0.014% KOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\text{C}-\underset{\text{C}}{\overset{\text{O}}{\parallel}}-\text{C}$		*1	295 ~340	4.3 0.5	T1	2685
	benzoylacetaldehyde	*2	247 284	4.0 3.4	C22	2686
		*3	250 310	4.0 2.7	E8	2687
	3-benzoyl-2-butanone	A	248 284 310	4.1 3.2 2.3	M53	2688
	3-benzoyl-2-bornanone	*3	250	4.1	E8	2689
	2-acetyl-2-benzoylpropane	A	236.5 274 280.5 310	4.2 3.0 3.0 2.0	M53	2690
	ethyl benzoylacetate	W	249 285	4.0 3.1	M53	2691
	α -chloroacetophenone; phenacyl chloride	H	198 246 280 329	4.2 3.9 3.0 1.8	M47	2692
	α -bromoacetophenone; phenacyl bromide	H	197 250 331	4.5 4.1 2.2	M47	2693
	o-methylacetophenone	Hp	238 283	3.9 3.1	H33	2694
	p-methylacetophenone	A	252	4.1	T1	2695
		Hp	247	4.2	H33	2696
		*1	312	4.4	T1	2697
		*4	256	4.2	D33	2698
	1-indanone	Hp	239 284	4.1 3.4	H33	2699
	1,2,3,4-tetrahydro-1-naphthalenone	Hp	243 286	4.1 3.2	H33	2700
	1,2-benzocyclohepten-5-one	Hp	240 281	4.0 3.1	H33	2701

*1 H_2SO_4 *2 0.01N HCl *3 conc. H_2SO_4 *4 0.1N HCl+A (1:1)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\text{C}_2\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{:O}$	1,2-benzocycloocten-5-one	Hp	243 286	3.8 3.0	H33	2702
	2,4-dimethylacetophenone	Hp	246 282	4.1 3.1	H33	2703
	3,4-dimethylacetophenone	Hp	249 282	4.2 3.1	H33	2704
$\text{C}_3\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{:O}$	2,4,6-trimethylacetophenone	Hp	239	3.5	H33	2705
	4,7-dimethyl-1-indanone	Hp	245 293	4.1 3.4	H33	2706
	5,7-dimethyl-1-indanone	Hp	250 295	4.2 3.4	H33	2707
	1,2,3,4-tetrahydro-5,8-dimethyl-1-naphthalenone	Hp	246 300.5	4.0 3.4	H33	2708
$\text{C}_5\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{:O}$	1,4-dimethyl-1,2-benzocyclohepten-5-one	Hp	244 288	3.7 3.1	H33	2709
	1,2,3,4,5,6,7,8-octahydro-1-anthracenone	A	216 262 ~ 304	4.4 4.2 3.5	F49	2710
	1,2,3,4,5,6,7,8-octahydro-9,10-(2-methyltrimethylene)-1-phenanthrenone		265	4.1	B2	2711
$\text{N-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{:O}$	m-aminoacetophenone		235 340	4.3 3.3	F40	2712
	p-aminoacetophenone	A	233 317	3.8 4.3	K77	2713
		Hp	223 284 ~ 330	4.0 4.3 2.2	T1	2714
		*1	240 280	4.1 3.0	D33	2715
	p-(ethylamino)acetophenone	A	238 332	3.8 4.4	K77	2716
	1,2,3,4-tetrahydro-4-quinolinone	A	235 259 377	4.5 3.8 3.6	B123	2717
	p-(dimethylamino)acetophenone	A	239 337	3.8 4.4	K77	2718

*1 2N HCl

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
$\text{N}_2\text{-}\overset{\text{C}}{\underset{\text{C}}{\text{C}}}=\text{O}$	6-[bis(2-cyanoethyl)amino]-1-(2-cyanoethyl)-1,2,3,4-tetrahydro-4-quinolinone	A	247 424-31	4.4 3.5	B123	2719
$\text{O}-\overset{\text{C}}{\underset{\text{C}}{\text{C}}}=\text{O}$	o-hydroxyacetophenone	A	251.5 327	4.0 3.5	M56	2720
		H	249.5 255.5 329	4.0 4.0 3.6	M56	2721
		V	243 250 321		M56	2722
		*2	209.5 324	4.3 3.5	D35	2723
		*2	225.5 359	4.3 3.7	D35	2724
	m-hydroxyacetophenone	*1	215 308	4.2 3.4	D35	2725
		*2	234.5 349	4.4 3.4	D35	2726
	p-hydroxyacetophenone	A	220.5 276	4.0 4.1	M56	2727
		Hp	258 301	4.1 1.8	T1	2728
		*1	218.5 275	4.0 4.2	D33	2729
		*3	225 236 325	3.7 3.7 4.2	D33	2730
	o-methoxyacetophenone	A	253 319.5	4.1 3.6	D33	2731
		H	246.5 310	4.1 3.8	D33	2732
		V	238.5 299		D33	2733
	p-methoxyacetophenone	A	219 277	4.1 4.2	D33	2734
	ethyl 4-oxo-2-chromanecarboxylate	A	253 316	3.9 3.5	J9	2735

*1 0.1N HCl *2 0.1N NaOH *3 1 equiv. NaOH/W

*1	50% A	*2	0.1N HCl + 50% A (1:1)	*3	0.1N NaOH + 50% A (1:1)	*4	0.01N NaOH
*5	0.014% KOH/W	*6	KOH/A				

system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
$\begin{array}{c} \text{O}_3-\text{C}:\text{O} \\ \\ \text{C} \end{array}$	2,4-dimethoxyacetophenone	*1	210 228 269	4.2 4.1 4.1	K1	2753
		*2	209 228 270	4.2 4.1 4.1	K1	2754
		*3	228 270 306	4.2 4.1 3.9	K1	2755
	2,6-dimethoxyacetophenone	cH	240 279	3.3 3.2	C104	2756
		*2	267	3.5	C104	2757
	α -(3,4-methylenedioxybenzoyl)benzyl alcohol	A	232 277 313	4.3 3.9 3.9	L35n	2758
	5,7-dihydroxy-4-oxo-2-chromanecarboxylic acid	A	283	4.3	J9	2759
		*5	310	4.5	J9	2760
	4-hydroxy-3,5-dimethoxyacetophenone	A	302	4.1	L10	2761
		*4	362	4.4	L10	2762
	5,7-dimethoxy-3-(4-methoxyphenyl)-4-chromanone; 4',5,7-trimethoxyiso-flavanone	A	283.5	4.3	B103	2763
	1,2,3,4-tetrahydro-6-methoxy-2-(p-methoxybenzyl)-1-naphthalenone	A	225 276	4.4 4.3	J33n	2764
$\begin{array}{c} \text{OC}-\text{C}:\text{O} \\ \\ \text{C} \end{array}$	2,4-dihydrox-3-methylacetophenone	cH	276 318	4.1 3.6	C104	2765
$\begin{array}{c} \text{O}_2\text{C}-\text{C}:\text{O} \\ \\ \text{C} \end{array}$		*2	286	4.2	C104	2766
		*6	332	4.4	C104	2767
	2,4-dihydroxy-5-methylacetophenone	cH	272 326	4.0 3.7	C104	2768
		*2	280 326	4.0 3.9	C104	2769
		*6	337	4.4	C104	2770

*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1) *4 0.014% KOH/W
 *5 KOH/A *6 0.01N NaOH

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	2,4-dihydroxy-6-methylacetophenone	cH	275 321	4.0 3.6	C104	2771
		*2	283	4.0	C104	2772
		*4	330	4.1	C104	2773
	2,6-dihydroxy-3-methylacetophenone	cH	266 344	4.1 3.5	C104	2774
		*2	273 357	4.1 3.5	C104	2775
		*4	285 394	3.9 3.6	C104	2776
	2,6-dihydroxy-4-methylacetophenone	cH	267 332	4.2 3.4	C104	2777
		*2	276 343	4.2 3.4	C104	2778
		*4	288 378	4.0 3.6	C104	2779
	5-ethyl-2-hydroxy-4-methoxyacetophenone	*1	212 232.5 278	4.3 4.1 4.1	K1	2780
		*2	211 232.5 278	4.2 4.1 4.1	K1	2781
		*3	244 279 360	4.2 4.0 3.9	K1	2782
	5-ethyl-4-hydroxy-2-methoxyacetophenone	*1	209 233.5 272	4.3 4.2 4.0	K1	2783
		*2	212.5 232 272	4.2 4.2 4.0	K1	2784
		*3	251 338.5	3.9 4.4	K1	2785
	5-ethyl-2,4-dimethoxyacetophenone	*1	231.5 272	4.2 4.0	K1	2786
	2,6-dimethoxy-3-methylacetophenone	cH	282	3.3	C104	2787

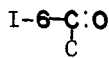
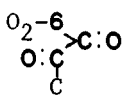
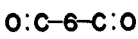
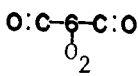
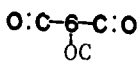
*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1) *4 0.01N NaOH

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{O}_2\text{C}_2\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$	2,4-dihydroxy-3,5-dimethylacetophenone	*1	283	3.3	C104	2788
		*2	282	3.3	C104	2789
	2,4-dihydroxy-3,6-dimethylacetophenone	cH	277 328	4.2 3.7	C104	2790
		*1	285 329	4.2 3.7	C104	2791
	2,4-dihydroxy-5,6-dimethylacetophenone	*2	342	4.4	C104	2792
		cH	281 326	4.0 3.4	C104	2793
	2,6-dihydroxy-3,4-dimethylacetophenone	*1	291	4.0	C104	2794
		*2	333	4.2	C104	2795
	2,6-dihydroxy-3,5-dimethylacetophenone	cH	277 332	4.0 3.7	C104	2796
		*1	285	3.8	C104	2797
	2,6-dihydroxy-3,4-dimethylacetophenone	*2	348	3.9	C104	2798
		cH	272 356	4.0 3.7	C104	2799
	2,6-dihydroxy-3,5-dimethylacetophenone	*1	271 357	4.1 3.7	C104	2800
		*2	287 394	4.0 3.6	C104	2801
	2,4,6-trihydroxy-3-methylacetophenone	cH	268 353	4.1 3.1	C104	2802
		*1	275 363	4.1 3.5	C104	2803
$\text{O}_3\text{C-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$	1-(2-cyanoethyl)-1,2,3,4-tetrahydro-5-hydroxy-4-quinolinone	*2	288 407	3.9 3.4	C104	2804
			223 291		B103n	2805
$\text{ON-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}\text{-}\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$	1-(2-cyanoethyl)-1,3,4,4-tetrahydro-5-methoxy-4-quinolinone	A	239 410	4.3 3.7	B123	2806
		A	238 407	4.5 3.7	B123	2807

*1 0.1N HCl + 50% A (1:1) *2 0.01N NaOH

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S- $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	p-phenylthioacetophenone	A	305		S88	2808
	p-phenylsulfinylacetophenone	A	252		S88	2809
	p-phenylsulfonylacetophenone	A	252		S88	2810
Cl- $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	p-chloroacetophenone	A	282 \sim 280	4.2 3.1	T1	2811
		Hp	249 319	4.2 1.8	T1	2812
		*4	315	4.3	T1	2813
ClN- $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	6-chloro-1-(2-cyanoethyl)-1,2,3,4-tetrahydro-4-quinolinone	A	239 393	4.4 3.7	B123	2814
Br- $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	p-bromoacetophenone	A	256	4.3	T1	2815
		Hp	253 \sim 280 320	4.3 2.9 1.8	T1	2816
		*4	327	4.4	T1	2817
	α ,p-dibromoacetophenone; p-bromophenacyl bromide	iO	263.5		S2g	2818
BrC ₂ - $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	7-bromo-4-methyl-1-indanone	cH	248 256	4.0 4.0	F49	2819
	4-bromo-7-methyl-1-indanone	cH	254	4.2	F49	2820
BrO ₂ - $\text{C}_6\text{H}_4\text{C}(=\text{O})\text{CH}_3$	5-bromo-2,4-dihydroxyacetophenone	*1	220 276 332	4.3 4.0 4.0	K1	2821
		*2	217.5 275 327	4.3 4.1 3.8	K1	2822
		*3	237.5 330	4.1 4.2	K1	2823
	5-bromo-2-hydroxy-4-methoxyacetophenone	*1	220 235 274 328	4.3 4.2 4.1 3.8	K1	2824
		*2	219.5 234 274	4.3 4.2 4.1	K1	2825

*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1) *4 H₂SO₄

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
		*3	245 361	4.3 3.9	K1	2826
	5-bromo-4-hydroxy-2-methoxyacetophenone	*1	216.5 232.5 268	4.2 4.2 4.0	K1	2827
		*2	218 232 268.5	4.2 4.2 4.0	K1	2828
		*3	253 336	4.0 4.3	K1	2829
	5-bromo-2,4-dimethoxyacetophenone	*1	230 267 316	4.3 4.1 3.9	K1	2830
		*2	252.5 268 318	4.3 4.0 3.8	K1	2831
		*3	231.5 268 318	4.3 4.0 3.8	K1	2832
	p-iodoacetophenone	A	265	4.2	T1	2833
		Hp	263 326	4.3 1.9	T1	2834
		*5	362	4.2	T1	2835
	α -bromo-p-iodoacetophenone; p-iodo-phenacyl bromide	M	276		S2g	2836
	2-methoxy-4-pyruvoylphenol	A	324	3.9	L10	2837
		*4	370	4.4	L10	2838
	phthalaldehyde	H	255 297	4.0 3.4	G33	2839
		*6	260	2.6	G33	2840
	5-ethoxy-4-hydroxyisophthalaldehyde	M	232.5 276		S2g	2841
	2-hydroxy-5-methylisophthalaldehyde	A	236 350	4.4 3.8	B157	2842

*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1) *4 0.014% KOH/W
 *5 H₂SO₄ *6 0.1N NaOH/W

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{C} \end{array}$	2-methoxy-5-methylisophthalaldehyde	A	233 319	4.4 3.5	B157	2843
	o-(hydroxyacetyl)acetophenone		227 298 344	4.2 4.0 4.0	W39u	2844
	1,3-indanedione	M	227 255 300	4.6 4.0 3.1	M9n	2845
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{N}_2 \quad \text{C} \end{array}$	4,7-bis(2-cyanoethyl)-1,2,3,4,7,8,9,10-octahydro-4,7-phenanthroline-1,10-dione	A	284-51 492-6	4.3 3.7	B123	2846
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{NC} \quad \text{C} \end{array}$	1,5-bis(2-cyanoethyl)-1,2,3,4,5,6,7,8-octahydro-1,5-diazaanthracene-4,8-dione	A	238 322-5 478	4.4 3.4 3.7	B123	2847
	1,2,3,4,5,6-hexahydro-8-methyl-1,6-dioxo-3a-azaphenalene	A	228 305 414-20	4.5 3.4 3.8	B123	2848
	1,3-diacetyl-2,4-dihydroxybenzene	A	246.5	4.4	M56	2849
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{O}_2 \quad \text{C} \end{array}$	1,5-diacetyl-2,4-dihydroxybenzene	A	253	4.7	M56	2850
	1,3-diacetyl-2,4-dimethoxybenzene	A	228 266	4.1 4.1	M56	2851
	1,5-diacetyl-2,4-dimethoxybenzene	A	246	4.5	M56	2852
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{O}_3 \quad \text{C} \end{array}$	1,2,3,4-tetrahydro-5,8-dihydroxy-1,4-naphthalenedione	A	228 255 294.5	4.2 4.0 3.9	B148	2853
	1,2,3,4-tetrahydro-5,6,8-trihydroxy-1,4-naphthalenedione	A	250 263.5 399	4.1 4.1 4.0	B148	2854
	1,2,3,4-tetrahydro-5,8-dihydroxy-6-methyl-1,4-naphthalenedione	A	234 263 394.5	4.2 4.0 3.9	B148	2855
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{O}_2\text{N} \quad \text{C} \end{array}$	6-anilino-1,2,3,4-tetrahydro-5,8-dihydroxy-1,4-naphthalenedione	A	265 417	4.3 4.2	B148	2856
$\begin{array}{c} \text{O}:\text{C}-\text{C}-\text{C}:\text{O} \\ \quad \\ \text{C} \quad \text{O}_2\text{N} \quad \text{C} \end{array}$	benzophenone	A	253	4.3	J25	2857
		AA	254	4.3	T6	2858
		*1	260	4.1	T6	2859

*1 H₂SO₄ + AA (2:8)

(6)₂(0:C)(6)₂(0:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{C}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	4-methylbenzophenone	M	259	4.2	K3	2860
$\text{C}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,2'-dimethylbenzophenone		254	4.3	P15	2861
$\text{C}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,3'-dimethylbenzophenone		256	4.2	P15	2862
	2,4'-dimethylbenzophenone		262	4.4	P15	2863
	3,3'-dimethylbenzophenone		258	4.2	P15	2864
	3,4'-dimethylbenzophenone		263	4.3	P15	2865
	4,4'-dimethylbenzophenone		265	4.4	P15	2866
	9,10-dihydro-9-anthracenone; anthrone	A	257	4.4	J25	2867
$\text{C}_2-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,5-dimethylbenzophenone	cH	244	4.2	F49	2868
	3,4-tetramethylenebenzophenone	A	266	4.2	F49	2869
$\text{C}_2-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$ $\text{C}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,3',4-trimethylbenzophenone	cH	252-5	4.2	F49	2870
$\text{C}_3-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$ $\text{C}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,2',4,6-tetramethylbenzophenone	cH	244	4.2	F49	2871
$\text{C}_3-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$ $\text{C}_2-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2,2',4,5',6-pentamethylbenzophenone	cH	248-53	4.1	F49	2872
$\text{N}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	4-(dimethylamino)benzophenone	A	247 255-7	4.2 4.4	S85	2873
$\text{N}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$ $\text{N}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	4,4'-bis(dimethylamino)benzophenone	M	370	4.3	S85	2874
		A	370	4.3	S85	2875
$\text{O}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	2-hydroxybenzophenone	M	251 342	4.0 3.2	S85	2876
	4-hydroxybenzophenone	M	289	4.2	S85	2877
	2-methoxybenzophenone	M	251 342	4.0 3.2	S85	2878
	3-methoxybenzophenone	M	256	4.1	S85	2879
	4-methoxybenzophenone	A	283	4.2	B155	2880
	4-phenoxybenzophenone	A	249	4.5	S85	2881
$\text{O}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$ $\text{O}-\underset{\text{6}}{\text{6}}>\text{C}:\text{O}$	4,4'-dihydroxybenzophenone	M	295	4.3	V1	2882
	4,4'-dimethoxybenzophenone	A	289	4.4	B155	2883

(6)₂(0:C)(6)₂(0:C)

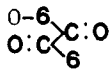
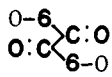
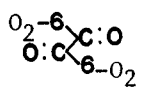
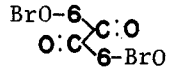
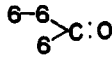
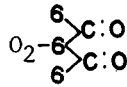
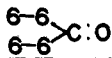
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$	2,4-dihydroxybenzophenone	M	242 290 338	3.9 4.0 4.1	V1	2884
	2,6-dihydroxybenzophenone	M	250 280	4.1 3.7	V1	2885
	2-hydroxy-4-methoxybenzophenone	M	289 322	4.1 4.0	V1	2886
	2,4-dimethoxybenzophenone	M	245 280 310	4.2 3.9 3.8	V1	2887
$\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{O-}\overset{\text{6}}{\text{C}}\text{:O}$	2,4-dihydroxy-4'-methoxybenzophenone	M	256 285 325	4.2 4.3 4.1	V1	2888
	2-hydroxy-4,4'-dimethoxybenzophenone	M	285 320	4.2 4.1	V1	2889
$\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$	2,2',4,4'-tetrahydroxybenzophenone	M	242 283 352	3.8 4.0 4.2	V1	2890
$\text{OC-}\overset{\text{6}}{\text{C}}\text{:O}$	2-hydroxy-5-methylbenzophenone		251 342	4.0 3.2	M52	2891
$\text{O-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{C}_3\text{-}\overset{\text{6}}{\text{C}}\text{:O}$	2'-methoxy-2,4,6-trimethylbenzophenone	A	255 317	4.0 3.6	R7	2892
$\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{C-}\overset{\text{6}}{\text{C}}\text{:O}$	2,4-dihydroxy-4'-methylbenzophenone	M	250 290 340	3.9 4.1 4.1	V1	2893
	2-hydroxy-4-methoxy-3'-methylbenzophenone	M	250 300	3.9 4.3	V1	2894
$\text{OC-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{OC-}\overset{\text{6}}{\text{C}}\text{:O}$	9,10-dihydro-1,8-dihydroxy-10-anthracenone; 1,8-dihydroxyanthrone	M	223.5 251 282		S2g	2895
$\text{S-}\overset{\text{6}}{\text{C}}\text{:O}$	4-phenylthiobenzophenone	A	243 315	4.3 4.2	S85	2896
	4-phenylsulfonylbenzophenone	A	257	4.4	S85	2897
$\text{Cl-}\overset{\text{6}}{\text{C}}\text{:O}$	4-chlorobenzophenone	A	260	4.3	S85	2898
$\text{Cl-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{Cl-}\overset{\text{6}}{\text{C}}\text{:O}$	2,4'-dichlorobenzophenone	A	262	4.4	S85	2899
	4,4'-dichlorobenzophenone	A	265	4.4	S85	2900
$\text{Cl-}\overset{\text{6}}{\text{C}}\text{:O}$ $\text{O}_2\text{-}\overset{\text{6}}{\text{C}}\text{:O}$	4'-chloro-2,4-dihydroxybenzophenone	M	250 290 325	4.1 4.0 4.0	V1	2901

(6)₂(0:C)(6)₂(0:C)₂

system	compound	solv.	λ _{max} .	logε	ref.	no.
	3',4'-dichloro-2,4-dihydroxybenzophenone	M	252 290 325	4.0 4.1 4.0	V1	2902
	p-phenylacetophenone	A Hp	284 276 320	4.3 4.3	T1 T1	2903 2904
	α-chloro-p-phenylacetophenone	M	256.5		S2g	2905
	2-acetylfluorene	A	313	4.4	S13	2906
	1,2,3,10b-tetrahydro-3-oxofluoranthene-1-carboxylic acid	A	256	4.4	F49	2907
	2-acetyl-7-aminofluorene	A	243 352	4.1 4.4	S16	2908
	2-acetyl-7-hydroxyfluorene	A	233 331	4.1 4.5	S16	2909
		*1	252 384	4.1 4.5	S16	2910
	diphenylethanedione; benzil	A	259 370	4.3 1.9	L11	2911
	1-mesityl-2-phenylethanedione	A	265 400	4.2 1.9	L11	2912
	1-mesityl-2-(p-tolyl)ethanedione	A	278 400	4.3 2.0	L11	2913
	1-phenyl-2-(2,3,4,6-tetramethylphenyl)-ethanedione	A	265 402	4.4 1.9	L11	2914
	1-phenyl-2-(2,3,5,6-tetramethylphenyl)-ethanedione	A	268 405	4.1 1.7	L11	2915
	1-mesityl-2-(2,4-xylyl)ethanedione	A	275 400	4.2 1.9	L11	2916
	dimesitylethanedione	A	255-90 467 493	3.4 1.7 1.7	L11	2917
	bis(2,3,4,6-tetramethylphenyl)ethanedione	A	265 310 470 490	3.5 3.2 1.7 1.7	L11	2918

*1 A containing 0.1N KOH/W

(6)₂(O:C)₂(6)₄(O:C)

system	compound	solv.	λ _{max.}	logε	ref.	no.
	bis(2,3,5,6-tetramethylphenyl)ethanedione	A	267	3.6	L11	2919
	1-(o-methoxyphenyl)-2-phenylethanedione	A	257 323	4.3 3.6	L13	2920
	1-(m-methoxyphenyl)-2-phenylethanedione	A	255 319 365	3.9 4.1 3.3	L13	2921
	1-(p-methoxyphenyl)-2-phenylethanedione	A	255 291 ~380	4.2 4.3 2.1	L13	2922
	bis(o-hydroxyphenyl)ethanedione	A	257 332	4.3 3.9	L13	2923
	bis(p-hydroxyphenyl)ethanedione	A	299	4.5	L13	2924
	bis(o-methoxyphenyl)ethanedione	A	254 318	4.3 3.9	L13	2925
	bis(m-methoxyphenyl)ethanedione	A	262 322	4.1 4.2	L13	2926
	bis(p-methoxyphenyl)ethanedione	A	298	4.4	L13	2927
	bis(2,3-dimethoxyphenyl)ethanedione	A	261 320	4.3 3.7	L13	2928
	bis(3,4-dimethoxyphenyl)ethanedione	A	232 285 323	4.4 4.3 4.3	L13	2929
	bis(3,4-methylenedioxyphenyl)ethanedione	A	235 281 324	4.3 4.0 4.1	L13	2930
	bis(5-bromo-2-methoxyphenyl)ethanedione	A	250 331	4.3 3.9	L13	2931
	4-phenylbenzophenone	A	291	4.4	S85	2932
	1,3-dibenzoyl-2,4-dihydroxybenzene	M	248 348	4.3 4.3	V1	2933
	1,3-dibenzoyl-4,6-dihydroxybenzene	M	258 275 338	4.3 4.3 4.2	V1	2934
	4,4'-diphenylbenzophenone	*1	300 339	4.8 4.8	A22	2935

*1 1,2-dichloroethane

(6)₄(0:C)₂

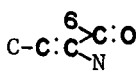
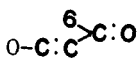
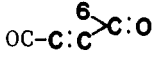
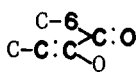
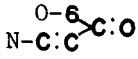
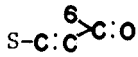
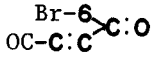
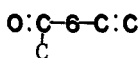
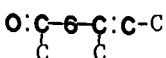
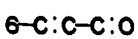
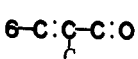
(6)(0:C)(C:C)

system	compound	solv.	λ _{max} .	logε	ref.	no.
		*1	358 415	4.4 4.8	A22	2936
	4,4'-dibenzoylbiphenyl		no		M62	2937
	4,4'-dibenzoyl-2,2'-dimethylbiphenyl		~340	2.7	M62	2938
	4,4'-dibenzoyl-3,3'-dimethylbiphenyl		no		M62	2939
	2,2'-bis(2,4,6-trimethylbenzoyl)biphenyl	A	255	4.3	R7	2940
	2,2',6,6'-tetrachloro-4,4'-dibenzoylbiphenyl		342	2.5	M63	2941
	2,4,6-tribenzoyl-1,3-dihydroxybenzene	D	258 280 330	4.3 4.5 3.9	V1	2942
	2-phenyl-2-cyclohepten-1-one	M	240	4.0	N15	2943
	3-methoxy-2-phenyl-2-cyclohexen-1-one	M	270	4.2	B96	2944
	acryloylbenzene	A	247.5	4.0	B99	2945
	crotonoylbenzene	A	252	4.2	K71	2946
	2-acryloylmesitylene	A	276	3.1	J9	2947
	1,2-bis(3-oxo-3-phenylpropenylamino)-ethane	A	242 245 345	4.3 4.3 4.5	B99	2948
	(3-anilinoacryloyl)benzene	A	242 254 374	4.2 4.2 4.5	B99	2949
	[3-(diethylamino)acryloyl]benzene	A	343	4.4	B99	2950
	(3-aminocrotonoyl)benzene	M	240 332	4.0 4.3	E7	2951
	(3-morpholinocrotonoyl)benzene	Hp	242 320	3.9 4.2	C110	2952

*1 H₂SO₄

(6)(0:C)(C:C)








(6)(0:C)(C:C)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	(3-anilinocrotonoyl)benzene	M	243 355	4.1 4.4	E7	2953
	(2-morpholinocrotonoyl)benzene	Hp	242 282 329	4.2 3.2 3.0	C110	2954
	(3-sodioxyacryloyl)benzene	A	240 327	3.9 4.0	C22	2955
	(3-methoxycrotonoyl)benzene	Hp	248 278	4.0 4.1	E7	2956
	2-acetoxy-1,4-dihydro-4,4-dimethyl-1-naphthalenone	A	249	4.0	E7	2957
	o-[3-(cyclohexylamino)acryloyl]phenol		355	4.4	W39u	2958
	(3-ethylthioacryloyl)benzene	A	319	4.3	B98	2959
	1-(p-bromophenyl)-3-methoxy-4-phenyl-2-buten-1-one	A	286	4.3	S48	2960
	p-vinylacetophenone		280	4.3	B2	2961
	2,2-diacetoxy-1,2-dihydro-4-methyl-1-naphthalenone	A	227 289 333	4.5 3.5 3.2	E2	2962
		C	291 337	3.5 3.3	E2	2963
	cinnamaldehyde	A	220 285	4.1 4.4	M13	2964
		AA	287	4.4	T6	2965
		B	287	4.4		2966
		iO	218 224 278	4.2 4.1 4.4	M13	2967
		*1	300 355	3.8 3.1	M13	2968
	α -methylcinnamaldehyde	A	280	4.3	G23u	2969

*1 H₂SO₄ + AA (2 vol. : 8 vol.)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
O- 6-C:C-C:O	p-hydroxycinnamaldehyde	D	315	4.2	F48n	2970
	p-methoxycinnamaldehyde	*1	425		P12	2971
		*2	326		P12	2972
O ₂ - 6-C:C-C:O	4-hydroxy-3-methoxycinnamaldehyde	*1	449		P12	2973
		*2	347		P12	2974
		*3	421		B70	2975
	3,4-dimethoxycinnamaldehyde	*1	451		P12	2976
		*2	343		P12	2977
O ₃ - 6-C:C-C:O	4-hydroxy-3,5-dimethoxycinnamaldehyde	*1	470		P12	2978
		*2	354		P12	2979
6-C:C-C:O C	4-phenyl-cis-3-buten-2-one	Hp	278	4.0	E7	2980
	4-phenyl-trans-3-buten-2-one	A	285	4.4	B117	2981
		Hp	279	4.3	E7	2982
6-C:C-C:O C C	2-benzylidenecyclopentanone	A	298.5	4.2	F48	2983
	2-benzylidenecyclohexanone	A	290	4.1	F48	2984
6-C:C-C:O C C	3-phenyl-2-cyclopenten-1-one	A	216	4.1	W25	2985
C- 6-C:C-C:O C C	1,1-diacetoxy-1,2-dihydro-3-methyl-2-naphthalenone		240 330	4.3 3.9	E2	2986
	3,3a,4,5-tetrahydro-2H-cyclopenta[a]-naphthalen-2-one	A	223 287	4.1 4.4	W25	2987
	2,3,3a,4,5,6-hexahydrobenz[e]azulen-2-one	A	224 274	4.0 4.1	K38	2988
C- 6-C:C-C:O C C C	1,2,3,4,9,10-hexahydro-1-phenanthrenone	A	230 298 ~320	4.1 4.2 4.2	W25	2989
	3-morpholino-4-phenyl-3-buten-2-one	Hp	267	3.9	C110	2990
6-C:C-C:O N C	4-morpholino-4-phenyl-3-buten-2-one	Hp	236 295	4.0 4.0	C110	2991

*1 38% HC1/A *2 50% A/W *3 (CH₃)₄NOH/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N- 	4-[p-(dimethylamino)phenyl]-3-buten-2-one	Hp	243 360	4.0 4.5	C110	2992
	4-hydroxy-4-phenyl-3-buten-2-one [enol form of benzoylacetone]	A	245.5 310.5	3.8 4.1	M53	2993
		C	249 311	3.8 4.2	M53	2994
		E	245 309	3.8 4.2	M53	2995
		H	246 306	3.8 4.2	M53	2996
		CCl ₄	311	4.2	M53	2997
		*1	270 351	3.7 4.6	E8	2998
		*2	236 321	3.9 4.3	E8	2999
O- 	4-methoxy-4-phenyl-3-buten-2-one	Hp	272	4.2	E7	3000
	4-(p-hydroxyphenyl)-3-buten-2-one	A	235 322	4.0 4.4	W25	3001
	4-(p-methoxyphenyl)-3-buten-2-one	A	232 ~316	4.0 4.4	W25	3002
	4-(p-acetoxyphenyl)-3-buten-2-one	A	223 288	4.1 4.4	W5	3003
	4-hydroxy-3-methyl-4-phenyl-3-buten-2-one [enol form of β -methylbenzalacetone]	A	309	4.1	M53	3004
	3-(α -hydroxybenzylidene)-2-bornanone	*1	277 354	3.9 4.4	E7	3005
		*2	234 325	3.8 4.1	E7	3006
OC- 	1,2,3,9,10,10a-hexahydro-7-methoxy-2-(p-methoxyphenyl)-3-phenanthrenone	A	223 241 330	4.2 4.1 4.5	J33n	3007
O ₃ - 	methyl 3,4,5,6-tetrahydro-2',3',4'-trimethoxy-3-oxobiphenyl-2-ylacetate	A	233 287	4.2 3.9	L28	3008
Cl- 	2-(p-chlorobenzylidene)cyclohexanone	A	224 294	3.9 4.3	H87	3009

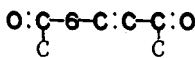
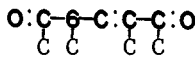
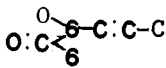
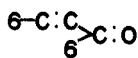
*1 dil. H₂SO₄

*2 5N NaOH

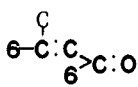
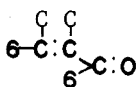
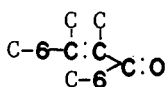
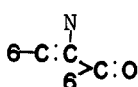
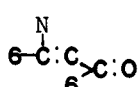
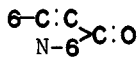
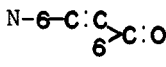
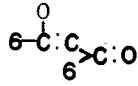
[illegible]

*1 H_2SO_4 + AA (2 vol. : 8 vol.)

(6)(0:C)(C:C)₄(6)₂(0:C)(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		M	382	4.7	T6	3030
		*1	298 525	3.8 4.7	T6	3031
6-[C:C] ₅ -C:O	11-phenyl-2,4,6,8,10-undecapentaenal	AA	293 410		T6	3032
		B	296 404		T6	3033
		M	290 408		T6	3034
		*1	259 580		T6	3035
6-[C:C] ₆ -C:O	13-phenyl-2,4,6,8,10,12-tridecahexaenal	AA	430		T6	3036
		B	425		T6	3037
		M	425		T6	3038
		*1	630		T6	3039
	4-(p-acetylphenyl)-3-buten-2-one		295		B2	3040
	2,5-diacetylstyrene		255 295	4.4 4.3	B2	3041
	2,6-diacetylstyrene		305	4.4	B2	3042
	3,6-diacetyl-1,2-dihydronaphthalene		260 300	4.5 4.2	B2	3043
	2-methoxy-4-propenylbenzophenone	M	259		S2g	3044
	1,3-diphenyl-cis-2-propen-1-one	iO	248 290	4.1 4.0	L36	3045
	1,3-diphenyl-trans-2-propen-1-one	AA	310	4.4	L36	3046
		B	308	3.3	L36	3047
		iO	298	4.4	L36	3048
		M	305	4.4	T6	3049
		*1	320 390	4.3 3.9	T6	3050

*1 H₂SO₄ + AA (2 vol. : 8 vol.)

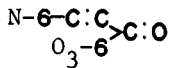
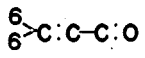
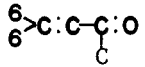
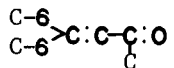
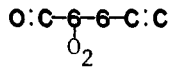
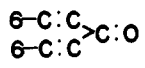
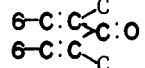
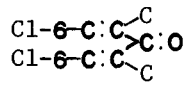
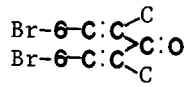
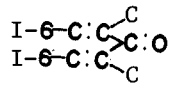
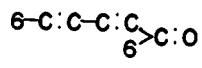
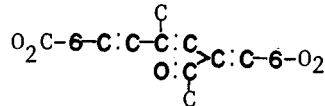
system	compound	solv.	λ _{max.}	logε	ref.	no.
	1,3-diphenyl-2-buten-1-one	cH	288.5	4.2	S69	3051
	4-chloro-1,3-diphenyl-2-buten-1-one	cH	292	4.3	S69	3052
	4-bromo-1,3-diphenyl-2-buten-1-one	cH	294	4.2	S69	3053
	4-iodo-1,3-diphenyl-2-buten-1-one	cH	296	4.2	S69	3054
	1-benzoyl-2-phenylcyclohexene		242	4.4	P1	3055
	1,1',2,2',3,3',4,4'-octahydro-1'-oxo-1,2'-binaphthylidene	A	248 290	4.1 3.3	O5	3056
	2-(N-benzyl-N-methylamino)-1,3-diphenyl-2-propen-1-one	Hp	248 286 392	4.2 4.2 3.2	C110	3057
	2-morpholino-1,3-diphenyl-2-propen-1-one	Hp	249 278 365	4.2 4.2 3.2	C110	3058
	3-benzylamino-1,3-diphenyl-2-propen-1-one	Hp	241 346	4.1 4.3	C110	3059
	3-morpholino-1,3-diphenyl-2-propen-1-one	Hp	245 328	4.2 4.1	C110	3060
	1-[p-(dimethylamino)phenyl]-3-phenyl-2-propen-1-one	M	303 387	4.3 4.4	K23	3061
		*1	248 315	4.1 4.3	K23	3062
		*2	490		K23	3063
	3-[p-(dimethylamino)phenyl]-1-phenyl-2-propen-1-one	Hp	254 385	4.2 4.5	C110	3064
		M	264 419	4.3 4.5	K23	3065
		*1	294	4.4	K23	3066
		*2	483		K23	3067
	3-hydroxy-1,3-diphenyl-2-propen-1-one [enol form of dibenzoylmethane]	Hp	225 250 338	3.8 3.9 4.3	E6	3068

*1 0.1N HCl/M *2 acetone containing 0.4% H₂SO₄

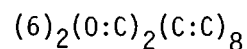
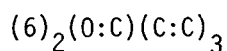
system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
		M	230 250 345	3.9 4.0 4.4	E6	3069
		*1	240 348	4.1 4.3	E8	3070
	cis-3-methoxy-1,3-diphenyl-2-propen-1-one [enol methyl ether of dibenzoyl-methane]	Hp	249 284	4.0 4.0	E6	3071
		M	254 290	4.0 4.1	E6	3072
	trans-3-methoxy-1,3-diphenyl-2-propen-1-one [enol methyl ether of dibenzoyl-methane]	Hp	242 306	4.0 4.2	E6	3073
		M	250 308	4.0 4.3	E6	3074
$\text{O}-\text{C}(\text{C}_6\text{H}_5)_2-\text{C}(\text{C}_6\text{H}_4\text{OH})=\text{C}(\text{C}_6\text{H}_5)-\text{C}(\text{C}_6\text{H}_5)=\text{O}$	1-(2,4-dihydroxyphenyl)-3-(p-hydroxyphenyl)-2-propen-1-one	M	242 370		B40n	3075
		*2	252 440		B40n	3076
		*3	236 422		B40n	3077
$\text{O}-\text{C}(\text{C}_6\text{H}_5)_2-\text{C}(\text{C}_6\text{H}_3\text{OH}_3)=\text{C}(\text{C}_6\text{H}_5)-\text{C}(\text{C}_6\text{H}_5)=\text{O}$	3-(p-hydroxyphenyl)-1-(2,3,4-trihydroxyphenyl)-2-propen-1-one	A	270 288		R42g	3078
	3-(p-hydroxyphenyl)-1-(2,4,6-trihydroxyphenyl)-2-propen-1-one	A	270 288 457		R42g	3079
$\text{O}_2-\text{C}(\text{C}_6\text{H}_5)_2-\text{C}(\text{C}_6\text{H}_4\text{OH}_2)=\text{C}(\text{C}_6\text{H}_5)-\text{C}(\text{C}_6\text{H}_5)=\text{O}$	1-(2,4-dihydroxyphenyl)-3-(3,4-dihydroxyphenyl)-2-propen-1-one	A	267 290 384		R42g	3080
	1-(2,4-dihydroxyphenyl)-3-(4-hydroxy-3-methoxyphenyl)-2-propen-1-one	A	267 291 384		R42g	3081
$\text{O}_2-\text{C}(\text{C}_6\text{H}_5)_2-\text{C}(\text{C}_6\text{H}_3\text{OH}_3)=\text{C}(\text{C}_6\text{H}_5)-\text{C}(\text{C}_6\text{H}_5)=\text{O}$	3-(3,4-dihydroxyphenyl)-1-(2,3,4-trihydroxyphenyl)-2-propen-1-one	A	270 289 386		R42g	3082
	3-(3,4-dihydroxyphenyl)-1-(2,4,6-trihydroxyphenyl)-2-propen-1-one	A	270 288 397		R42g	3083
$\text{O}-\text{C}(\text{C}_6\text{H}_5)_2-\text{C}(\text{C}_6\text{H}_5)(\text{C}_6\text{H}_5)=\text{C}(\text{C}_6\text{H}_5)-\text{C}(\text{C}_6\text{H}_5)=\text{O}$	3-hydroxy-2-methyl-1,3-diphenyl-2-propen-1-one	CH	244 330	4.0 4.2	D38	3084

*1 5N NaOH *2 0.002M NaOC₂H₅/A *3 0.17% AlCl₃/A

(6)₂(0:C)(C:C)(6)₂(0:C)(C:C)₃

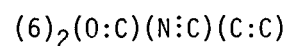
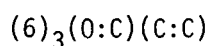
system	compound	solv.	λ _{max} .	logε	ref.	no.
N- 	3-(m-aminophenyl)-1-(2,3,4-trimethoxyphenyl)-2-propen-1-one	A	311	4.4	P37x	3085
	3-(p-aminophenyl)-1-(2,3,4-trimethoxyphenyl)-2-propen-1-one	A	387	4.4	P37x	3086
	3,3-diphenylacrylaldehyde	A	226 300	4.3 4.1	B62	3087
	1,1-dichloro-4,4-diphenyl-3-buten-2-one	A	231 310	4.1 4.1	B62	3088
	1,1,1-trichloro-4,4-diphenyl-3-buten-2-one	A	225 328	4.0 4.2	B62	3089
	4-hydroxy-4-methyl-1,1-di-(p-tolyl)-1-penten-3-one	A	310	4.2	P3	3090
	4,5-methylenedioxy-3'-vinylbiphenyl-2-carboxaldehyde	A	247 325	4.6 3.8	P3	3091
	1,5-diphenyl-1,4-pentadien-3-one	10	228 328	4.2 4.5	A17	3092
	2,5-dibenzylidenecyclopentanone	A	344	4.4	F45	3093
	2,6-dibenzylidenecyclohexanone	A	328	4.5	F45	3094
	2,6-bis(p-chlorobenzylidene)cyclohexanone	A	236 332	4.3 4.5	H87	3095
	2,6-bis(p-bromobenzylidene)cyclohexanone	A	236 335	4.3 4.6	H87	3096
	2,6-bis(p-iodobenzylidene)cyclohexanone	A	240 336	4.4 4.5	H87	3097
	1,5-diphenyl-2,4-pentadien-1-one	AA	265 343	4.1 4.6	T6	3098
		B	342	4.6	T6	3099
		M	265 342	4.0 4.6	T6	3100
		*1	370 460	4.2 4.5	T6	3101
	piperonylidenethebainone B methine		252-62 414	4.2 4.4	B56g	3102

*1 H₂SO₄ + AA (2 vol. : 8 vol.)



system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
$6-C:C-C:C-C:C-C_6>C:O$	1,7-diphenyl-2,4,6-heptatrien-1-one	AA	273 376	3.8 4.5	T6	3103
		B	370	4.7	T6	3104
		M	280 373	4.0 4.7	T6	3105
		*1	315 530	3.9 4.6	T6	3106
$6-C:C-C:C-C_6>C:O$ $6-C:C-C:C-C_6>C:O$	1,9-diphenyl-1,3,6,8-nonatetraen-5-one		375	4.6	K4	3107
$6-C:C-C:C-C-C-C-C_6>C:O$	1,9-diphenyl-2,4,6,8-nonatetraen-1-one	AA	402	4.8	T6	3108
		B	395	4.8	T6	3109
		M	400	4.8	T6	3110
		*1	260 330 585	3.9 3.9 4.7	T6	3111
$(6)_2(0:C)(C:C)_5$	1,11-diphenyl-2,4,6,8,10-undecapentaen-1-one	AA	418	4.8	T6	3112
		B	418	4.9	T6	3113
		M	418	4.8	T6	3114
		*1	650	4.7	T6	3115
$(6)_2(0:C)(C:C)_6$	1,13-diphenyl-2,4,6,8,10,12-tridecahexaen-1-one	AA	445		T6	3116
		B	435		T6	3117
		M	430		T6	3118
		*1	735		T6	3119
$(6)_2(0:C)_2(C:C)$	1,4-diphenyl-2-butene-1,4-dione	A	269	4.3	K70n	3120
$(6)_2(0:C)_2(C:C)-C$	2-methyl-1,4-diphenyl-cis-2-butene-1,4-dione	A	258	4.3	L35	3121
	2-methyl-1,4-diphenyl-trans-2-butene-1,4-dione	A	260	4.3	L35	3122
$(6)_2(0:C)_2(C:C)_6$	1,14-diphenyl-1,3,5,9,11,13-tetradeca-hexaene-7,8-dione		412	4.8	K4	3123
$(6)_2(0:C)_2(C:C)_8$	1,18-diphenyl-1,3,5,7,11,13,15,17-octadeca-octaene-9,10-dione		439	4.9	K4	3124

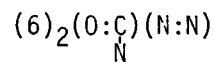
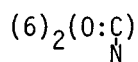
*1 H₂SO₄ + AA (2 vol. : 8 vol.)



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$(6)_3(O:C)(C:C)$	1-(p-biphenyl)-3-phenyl-2-propen-1-one	iO	223 310	4.3 4.5	C109n	3125
$(6)_4(O:C)_4(C:C)$	tetrabenzoyl ethylene	D	259	4.6	K26	3126
$6-C:C-C:O$	phenylpropionaldehyde	M	263.5		D41	3127
$6-C:C-C:O$ C	4-phenyl-3-butyne-2-one	H	269.5	4.1	M53	3128
$6-N:N>C:C-OC$ O:C C	4-hydroxy-3-(phenyl-trans-azo)-3-penten-2-one [enol form of 3-(phenylazo)-2,4-butanedione]	A	245 365	4.1 4.3	R42	3129
$O-6-C:C<6-C:O$ C C:N	α -(p-acetylphenyl)-p-methoxycinnamone nitrile	M	240 352	4.1 4.4	R31	3130

PART 20. (6)(0:C)-SYSTEM
N

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{O}-\text{C}(=\text{O})-\text{N}$	benzamide	M	225	4.0	L20	3131
	N-methylbenzamide	M	223	4.0	L20	3132
	N,N-dimethylbenzamide	M	225	3.8	L20	3133
$\text{O}-\text{C}(=\text{O})-\text{N}$	o-toluamide	M	269		S2g	3134
	m-toluamide	M	257		S2g	3135
	p-toluamide	M	234.5		S2g	3136
	N,N-diethyl-m-toluamide	cH	no		S2g	3137
$\text{O}-\text{C}(=\text{O})-\text{N}$	o-aminobenzamide	M	213 248		S2g	3138
	p-amino-N-ethylbenzanilide	A	294-6	4.2	S30	3139
	N-ethyl-p-(ethylamino)benzanilide	A	306-7	4.2	S30	3140
	p-aminohippuric acid	M	280		S2g	3141
$\text{O}-\text{C}(=\text{O})-\text{N}$	o-hydroxybenzamide	6.0	202.5 236 299	4.6 3.9 3.5	D35	3142
		11.0	214.5 241.5 329	4.5 3.9 3.8	D35	3143
$\text{O}_2\text{C}-\text{C}(=\text{O})-\text{N}$	α -dihydroacetylcaranine lactam	A	222 251 305	4.5 3.7 3.8	W4	3144
$\text{S}-\text{C}(=\text{O})-\text{N}$	p-carbamoylphenyl disulfoxide		240-4	4.3	B45	3145
$\text{O}:\text{C}(=\text{O})-\text{C}(=\text{O})-\text{N}$	N-phenylphthalimide	A	294	3.3	F49	3146
$\text{O}:\text{C}(=\text{O})-\text{C}(=\text{O})-\text{N}$	N-ethyl-4,5-methylenedioxyphthalimide	A	245 302	4.6 3.3	W4	3147
$\text{O}:\text{C}(=\text{O})-\text{C}(=\text{O})-\text{N}$	tetrachlorophthalimide	A	234 330	3.9 3.4	R32	3148
	tetrachloro-N-[2-(dimethylamino)ethyl]-phthalimide	A	288		R32	3149
$\text{C}-\text{C}(=\text{O})-\text{N}$	2'-methylbiphenyl-2-carbonamide	A	no		F49	3150



system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	fluorene-1-carbonamide	A	262	4.3	F49	3151
$\text{C}-\text{C}=\text{C}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	cis-cinnamamide		254	4.0	P1	3152
	trans-cinnamamide		273	4.3	P1	3153
	N-carbamoylcinnamamide; cinnamoylurea	A	288	4.5	S80	3154
		*1	288	4.5	S80	3155
		*2	288	4.5	S80	3156
$\text{C}-\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{C}}{\underset{ }{\text{C}}}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	2-phenyl-1-cyclohexene-1-carbonamide		240	3.8	P1	3157
$\text{C}-\text{C}=\text{C}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$ C^1	α -(p-chlorophenyl)-cis-cinnamamide	A	292	4.4	C71	3158
	α -(p-chlorophenyl)-trans-cinnamamide	A	223 280	4.4 4.3	C71	3159
$\text{C}-\text{N}=\text{N}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	carbamoylazobenzene	A	223 286 434	4.4 4.5 2.6	F44	3160
$\text{Br}-\text{C}-\text{N}=\text{N}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	1-bromo-4-(carbamoylazo)benzene	A	245 300 440	3.8 3.9 2.1	F44	3161
$\text{C}-\text{N}=\text{N}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	α -(azobenzene-4-carbonamido)phenylacetic acid	*3	325		M14	3162
$\text{N}-\text{C}-\text{N}=\text{N}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	α -[4'-(dimethylamino)azobenzene-4-carbonamido]phenylacetic acid	*3	470		M14	3163
$\text{O}-\text{C}-\text{N}=\text{N}-\underset{\text{N}}{\underset{ }{\text{C}}}-\text{O}$	α -(4'-hydroxyazobenzene-4-carbonamido)-phenylacetic acid	*3	357		M14	3164

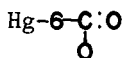
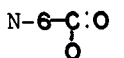
*1 0.01N NaOC₂H₅/A *2 1N HCl/W *3 Na salt in W

PART 21. (6)(O:C)- AND OTHER (6)(O:C)-SYSTEMS

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{C}_6\text{H}_5\text{C}(=\text{O})\text{OH}$	benzoic acid	A	202	3.9	M59	3165
			228	4.0		
			271	2.9		
	methyl benzoate	A	228	4.0	U2	3168
			273	2.9		
			230	4.1		
	phenyl benzoate	A	232	4.2	C33	3170
			235	4.4		
			275	3.4		
	benzoyl peroxide				C73	3171
$\text{C}_6\text{H}_4\text{C}(=\text{O})\text{OH}$	o-toluic acid	A	205	4.1	M59	3172
			228	3.7		
			279	2.9		
	m-toluic acid	A	205	4.1	M59	3173
			232	4.0		
			279	3.0		
	p-toluic acid	A	204	4.1	M59	3174
			236	4.1		
			241.5	4.2		
	1,3-dihydroisobenzofuran-1-one	A	227	4.0	S30	3177
			273	3.2		
			235	4.1		
$\text{C}_2\text{H}_5\text{C}(=\text{O})\text{OH}$	2,6-dimethylbenzoic acid	A	202	4.2	M59	3178
			270	2.9		
$\text{C}_3\text{H}_7\text{C}(=\text{O})\text{OH}$	5,6,7,8-tetrahydro-2-naphthoic acid	cH	243	4.2	F49	3179
			281	3.2		
$\text{C}_3\text{H}_4\text{C}(=\text{O})\text{OH}$	2,4,6-trimethylbenzoic acid	A	235	3.5	F5	3180
			270	2.6		
		*4	269	2.5	F5	3181

*1 anion *2 1N NaCl/W *3 1N NaOH/W *4 Na salt in A

(6)(0:C)
O(6)(0:C)
O

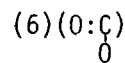
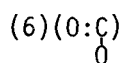
system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
	methyl 2,4,6-trimethylbenzoate	A	273	2.7	F5	3182
Hg- 	p-chloromercurybenzoic acid	7.0	232	4.2	B102	3183
N- 	o-aminobenzoic acid; anthranilic acid	A	218 247 337.5	4.4 3.8 3.7	M56	3184
		3.7	216.5 248 327	4.3 3.6 3.3	D35	3185
		11.0	209 240 310	4.4 3.9 3.4	D35	3186
	m-aminobenzoic acid	A	220 320.5	4.3 3.6	M56	3187
		3.7	218.5 250 310	4.1 3.4 2.8	D35	3188
		11.0	209.5 300	4.4 3.3	D35	3189
	p-aminobenzoic acid	A	218 289	3.9 4.3	M56	3190
		*1	226.5 270	4.1 3.0	D33	3191
		3.7	219.5 284	4.0 4.1	D33	3192
		*2	265	4.2	D33	3193
	p-(dimethylamino)benzoic acid	A	227 308	3.9 4.4	K77	3194
	p-(diethylamino)benzoic acid	A	227 312	3.9 4.5	K77	3195
	o-acetamidobenzoic acid	D	252 312	4.1 3.8	Z4	3196
		M	251 303	3.9 3.5	G23n	3197
	3,4-dihydro-1H-2-oxa-4-azanaphthalene-1,3-dione; isatic anhydride	*3	239 315	4.0 3.6	Z4	3198

*1 2N HCl/W *2 0.1N NaOH/W *3 dioxane containing 0.01M (CH₃)₃N

(6)(0:C)
O(6)(0:C)
O

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	p-acetamidobenzoic acid	M	212 267	4.3	S2g	3199
	methyl o-aminobenzoate; methyl anthranilate	H	248 341	3.7 3.7	G23q	3200
	ethyl p-aminobenzoate	M	218 289		S2g	3201
0-6-C:O O	o-hydroxybenzoic acid; salicylic acid	A	204 236 307	4.4 3.9 3.6	M59	3202
		3.0	202.5 237 302.5	4.6 4.0 3.6	D35	3203
		9.0	230.5 296	3.9 3.5	D35	3204
		11.0	242 306	3.8 3.5	D35	3205
		*1	226 294		S2g	3206
	m-hydroxybenzoic acid	A	203 236 301	4.4 3.8 3.4	M59	3207
		3.0	206 236.5 296	4.4 3.9 3.4	D35	3208
		9.0	287	3.3	D35	3209
		11.0	216.5 312	4.4 3.4	D35	3210
	p-hydroxybenzoic acid	A	201 251	4.2 4.1	M59	3211
		*2	207.5 255	4.1 4.1	D33	3212
		8.0	245	4.1	D33	3213
		*3	280	4.2	D33	3214
	o-methoxybenzoic acid	A	206 230 291	4.2 3.8 3.4	M59	3215

*1 ammonium salt in M *2 0.1N HCl/W *3 0.1N NaOH/W



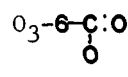
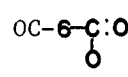
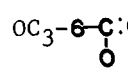
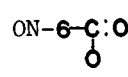
system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	m-methoxybenzoic acid	A	206 230 293	4.4 3.8 3.4	M59	3216
	p-methoxybenzoic acid	A	205 249	4.2 4.1	M59	3217
		*1	208 256.5	4.2 4.2	D33	3218
		*2	247	4.1	D33	3219
	o-phenoxybenzoic acid	*3	222 285	4.1 3.5	U5	3220
	m-phenoxybenzoic acid	*3	220 290	4.4 3.3	U5	3221
	p-phenoxybenzoic acid	*3	255	4.2	U5	3222
	o-acetoxybenzoic acid	A	279	3.0	W5	3223
	o-benzoxybenzoic acid	A	276	3.3	W5	3224
	methyl o-hydroxybenzoate	A	238 306	4.0 3.6	B61	3225
		10	238 308	4.0 3.6	B61	3226
	phenyl o-hydroxybenzoate	cH	241 309		S2g	3227
	methyl p-hydroxybenzoate	M	255		S2g	3228
	methyl o-methoxybenzoate	A	234 294	3.8 3.5	B61	3229
		D	231 292	3.8 3.5	B61	3230
	methyl p-methoxybenzoate	H	252		S2g	3231
	methyl o-acetoxybenzoate	A	279	3.0	W5	3232
	methyl o-benzoxybenzoate	A	277	3.3	W5	3233
$\text{O}_2-\text{C}-\text{C}:\text{O}$ O	2,5-dihydroxybenzoic acid	M	216 238		S2g	3234
	4-hydroxy-3-methoxybenzoic acid	A	298		L10	3235

*1 0.1N HCl/W *2 0.1N NaOH/W *3 cH + D (9:1)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	2-hydroxy-3-phenoxybenzoic acid	*1	235 270 316	4.0 3.4 3.7	U5	3236
	2-hydroxy-4-phenoxybenzoic acid	*1	260 300	4.2 3.8	U5	3237
	2-hydroxy-5-phenoxybenzoic acid	*1	272 327	3.3 3.6	U5	3238
	2-hydroxy-6-phenoxybenzoic acid	*1	316	3.8	U5	3239
	3-hydroxy-2-phenoxybenzoic acid	*1	277 297	3.4 3.5	U5	3240
	3-hydroxy-4-phenoxybenzoic acid	*1	251 295	4.1 3.7	U5	3241
	3-hydroxy-5-phenoxybenzoic acid	*1	270 303	3.3 3.6	U5	3242
	4-hydroxy-2-phenoxybenzoic acid	*1	252 280	4.3 3.5	U5	3243
	4-hydroxy-3-phenoxybenzoic acid	*1	254 285	4.2 3.4	U5	3244
	5-hydroxy-2-phenoxybenzoic acid	*1	277 309	3.2 3.5	U5	3245
	2,3-dimethoxybenzoic acid	*1	294	3.4	U5	3246
	2-methoxy-3-phenoxybenzoic acid	*1	235 270 290	3.9 3.4 3.4	U5	3247
	3-methoxy-2-phenoxybenzoic acid	*1	278 295	3.5 3.5	U5	3248
	2-methoxy-4-phenoxybenzoic acid	*1	252 291	4.1 3.7	U5	3249
	4-methoxy-2-phenoxybenzoic acid	*1	249 280	4.1 3.4	U5	3250
	2-methoxy-5-phenoxybenzoic acid	*1	272 327	3.3 3.6	U5	3251
	5-methoxy-2-phenoxybenzoic acid	*1	238 277 308	3.9 3.2 3.5	U5	3252

*1 cH + D (9:1)

(6)(0:C)
0(6)(0:C)
0

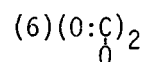
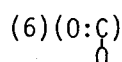
system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
	2-methoxy-6-phenoxybenzoic acid	*1	279	3.5	U5	3253
	3-methoxy-4-phenoxybenzoic acid	*1	260 295	4.0 3.7	U5	3254
	4-methoxy-3-phenoxybenzoic acid	*1	254 285	4.0 3.5	U5	3255
	3-methoxy-5-phenoxybenzoic acid	*1	271 301	3.3 3.4	U5	3256
	ethyl 3,4-dihydroxybenzoate	D	258 292.5		P5	3257
	butyl 4-hydroxy-3-methoxybenzoate	M	217.5 260 291		S2g	3258
	4-hydroxy-3,5-dimethoxybenzoic acid	A	273		L10	3259
		*2	300		L10	3260
	2-methoxy-3,4-methylenedioxybenzoic acid	M	261 290		S2g	3261
	sec-butyl 4-hydroxy-3,5-dimethoxybenzoate	M	274.5		S2g	3262
	2-hydroxy-m-toluic acid	M	240.5 308		S2g	3263
	2-hydroxy-p-toluic acid	M	240 308	3.9 3.6	S2g	3264
	1-acetoxy-7-(diacetoxymethyl)-1,3-dihydro-4-methoxy-5-methyl-3-oxoisobenzofuran	A	297	3.7	G33	3265
	4-aminosalicylic acid	A	239 285 304	3.8 4.2 4.2	D37	3266
		*3	207 263 295	4.4 4.1 3.9	S2g	3267
	4-acetamidosalicylic acid	A	269 304	4.3 4.0	D37	3268
	methyl 4-aminosalicylate	A	241 289 307	4.0 4.2 4.3	D37	3269

*1 CH + D (9:1) *2 0.014% KOH/W *3 Ca salt in W

(6)(0:C)
O(6)(0:C)
O

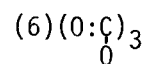
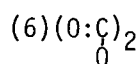
system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	m-methylthiobenzoic acid	*1	217 254 302.5	4.2 3.9 3.1	B21	3270
	p-methylthiobenzoic acid	*1	276	4.2	B21	3271
	6-sulfosalicylic acid	M	234 305		S2g	3272
	m-methylselenobenzoic acid	*1	215.5 260 295	4.2 3.8 3.2	B21	3273
	p-methylselenobenzoic acid	*1	217 290	3.9 4.1	B21	3274
	p-fluorobenzoic acid	M	226.5 263	4.0	S2g	3275
	o-chlorobenzoic acid	A	202 278	4.3 2.9	M59	3276
		3.0	229 280	3.8 2.9	D35	3277
		*2	273	2.4	D35	3278
	m-chlorobenzoic acid	A	204 230 284	4.3 3.9 3.0	M59	3279
		3.0	201.5 231.5 283	4.6 4.0 3.0	D35	3280
		*2	228 277	3.8 2.8	D35	3281
	p-chlorobenzoic acid	A	202 234	4.2 4.2	M59	3282
		*3	241	4.2	D33	3283
		11.0	235	4.1	D33	3284
	2,4-dichlorobenzoic acid	3.0	202 232 282	4.5 3.9 3.7	D35g	3285
	2,5-dichlorobenzoic acid	M	212.5 225 289		S2g	3286

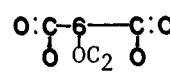
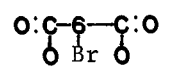
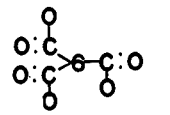
*1 5% A/W *2 0.1N NaOH/W *3 0.1N HCl/W



system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\text{Cl}_3-\text{C}_6\text{H}_2-\text{C}(=\text{O})\text{OH}$	2,6-dichlorobenzoic acid	A	204 274	4.4 2.7	M59	3287
	3,4-dichlorobenzoic acid	3.0	205 242 281	4.5 4.1 3.9	D35g	3288
	methyl 3,5-dichlorobenzoate		292	3.2	M64	3289
	2,3,4-trichlorobenzoic acid	M	289	2.8	V5n	3290
	2,3,5-trichlorobenzoic acid	M	295	3.0	V5n	3291
	2,4,5-trichlorobenzoic acid	M	292	3.0	V5n	3292
	2,3,4,5-tetrachlorobenzoic acid	M	296		S2g	3293
	2,3,5,6-tetrachlorobenzoic acid	M	214 294		S2g	3294
	2-amino-5-chlorobenzoic acid	3.0	218 250 340	4.3 3.7 3.4	D35g	3295
	o-bromobenzoic acid	A	205 262	4.2 3.8	M59	3296
$\text{Br}-\text{C}_6\text{H}_4-\text{C}(=\text{O})\text{OH}$	m-bromobenzoic acid	A	206 280	4.4 2.9	M59	3297
	p-bromobenzoic acid	A	205 240	4.2 4.1	M59	3298
		*1	245.5	4.2	D33	3299
		*2	239	4.2	D33	3300
$\text{Br}_2-\text{C}_6\text{H}_3-\text{C}(=\text{O})\text{OH}$	2,6-dibromobenzoic acid	A	205 262	4.5 3.0	M59	3301
$\text{BrO}-\text{C}_6\text{H}_4-\text{C}(=\text{O})\text{OH}$	5-bromosalicylic acid	W	206.5 308	4.6 3.5	D35g	3302
$\text{I}-\text{C}_6\text{H}_4-\text{C}(=\text{O})\text{OH}$	o-iodobenzoic acid	M	230 279	3.9	S2g	3303
$\text{O}=\text{C}_6\text{H}_4-\text{C}(=\text{O})\text{OH}$	phthalic acid	A	274 281	3.0 3.1	M56	3304
		*1	229 276	4.0 3.2	D35	3305

*1 0.1N HCl/W *2 1N NaOH/W



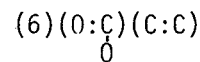
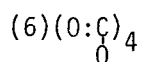
system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
		*1	225 281	4.0 3.1	L23	3306
		*2	192.5 227 272	4.6 3.9 2.9	L23	3307
	isophthalic acid	A	227 280	4.2 3.1	M56	3308
		*3	209 230 282	4.6 4.1 3.0	D35	3309
	terephthalic acid	*4	277	2.9	D35	3310
		A	238 284	4.2 3.2	M56	3311
		*2	193 236.5 280	4.6 4.1 3.1	M56	3312
	ethyl phthalate	A	223 274	3.9 3.1	H67n	3313
	monobutyl phthalate	*5	270		S2g	3314
	butyl isophthalate	M	279 288.5		S2g	3315
	butyl terephthalate	M	241		S2g	3316
	phenyl phthalate	M	~ 225 ~ 274		S2g	3317
	phthalic anhydride	D	251 288	3.6 3.3	H67n	3318
	o-carboxybenzoyl peroxide	M	272		S2g	3319
	7-methoxy-6-methyl-1-oxo-2-oxaundecan-4-carboxylic acid; isogradiolic acid	A	~ 245 298	3.9 3.7	G33	3320
	bromoterephthalic acid	M	240.5 291.5		S2g	3321
	benzene-1,2,4-tricarboxylic acid 1,2-anhydride	M	289		S2g	3322

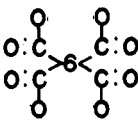
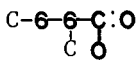
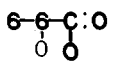
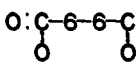
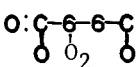
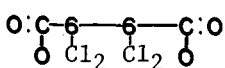
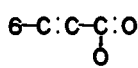
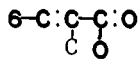
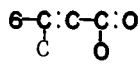
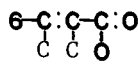
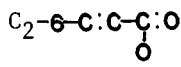
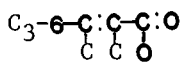
*1 monosodium salt
*5 copper(I) salt

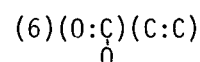
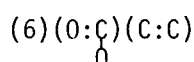
*2 disodium salt

*3 0.1N HCl/W

*4 0.1N NaOH/W

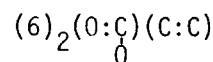
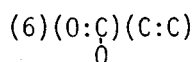


system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	benzene-1,2,4,5-tetracarboxylic acid	W	297	3.4	B62n	3323
	ethyl fluorene-1-carboxylate	A	245 263	4.4 4.3	F49	3324
	2-hydroxybiphenyl-3-carboxylic acid	D	230.5 321		S2g	3325
	4-hydroxybiphenyl-3-carboxylic acid	M	261.5 321		S2g	3326
	biphenyl-2,2'-dicarboxylic acid	A	280	3.3	W35	3327
	biphenyl-3,3'-dicarboxylic acid	A	no		W35	3328
	methyl biphenyl-4,4'-dicarboxylate	A	280	4.5	W35	3329
	4,5-methylenedioxybiphenyl-2,3'-dicarboxylic acid	A	226 268 295	4.6 3.8 3.8	W35	3330
	2,2',6,6'-tetrachlorobiphenyl-4,4'-dicarboxylic acid		295	3.6	M64	3331
	cis-cinnamic acid	M	268	4.0	A31	3332
	trans-cinnamic acid	A	268	4.3	A31	3333
		M	272	4.2	A31	3334
	methyl trans-cinnamate	A	216.5 276.5	4.2 4.3	M33n	3335
	α -butylcinnamic acid	M	265		S2g	3336
	β -methylcinnamic acid	A	265		R19	3337
	2-phenyl-1-cyclohexene-1-carboxylic acid		245	3.9	P1	3338
	3-(5,6,7,8-tetrahydro-2-naphthyl)acrylic acid	cH	228 292	4.2 4.4	F49	3339
	methyl 3-(5,6,7,8-tetrahydro-2-naphthyl)-acrylate	cH	227 286	4.3 4.4	F49	3340
	2-(1,2,3,4-tetrahydro-5,8-dimethyl-1-naphthylidene)propionic acid		219 256	4.3 3.0	F49	3341

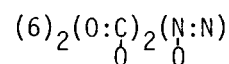
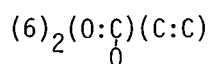


system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{N} \quad \text{O} \end{array}$	α -benzamidocinnamic acid	A	222 279	4.3 4.2	B51	3342
	ethyl α -benzamidocinnamate	A	222 282	4.3 4.3	B51	3343
$\text{6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	ethyl β -hydroxycinnamate [enol form of ethyl benzoylacetate]	*1	301	4.1	M53	3344
		*2	230 306	4.0 4.1	M53	3345
$\text{6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{S} \quad \text{O} \end{array}$	α -mercaptocinnamic acid	A	227 310	4.0 4.2	C4	3346
		*3	240 325	4.1 4.1	C4	3347
	α, α' -dithiobis(cinnamic acid)	A	285	4.4	C4	3348
		*3	275	4.3	C4	3349
$\text{O}_2\text{-6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{S} \quad \text{O} \end{array}$	3,4-dimethoxy- α -mercaptocinnamic acid	A	327	4.2	C4	3350
		*3	335	4.2	C4	3351
		*4	253 370	4.0 4.3	C4	3352
	α -ethylthio-3,4-dimethoxycinnamic acid	A	330	4.2	C4	3353
		*3	308	4.2	C4	3354
	α, α' -dithiobis(3,4-dimethoxycinnamic acid)	A	335	4.3	C4	3355
		*3	318	4.3	C4	3356
$\text{Cl-6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{O} \end{array}$	<i>o</i> -chlorocinnamic acid	M	267		S2g	3357
$\text{Cl-6-C} \begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \\ \text{N} \quad \text{O} \end{array}$	α -acetamido- <i>p</i> -chlorocinnamic acid	A	217 284	4.0 4.3	B51	3358
	α -benzamido- <i>o</i> -chlorocinnamic acid	A	220 278	4.3 4.1	B51	3359
	α -benzamido- <i>p</i> -chlorocinnamic acid	A	224 284	4.3 4.3	B51	3360
	ethyl α -acetamido- <i>p</i> -chlorocinnamate	A	218 288	4.0 4.3	B51	3361
	ethyl α -benzamido- <i>o</i> -chlorocinnamate	A	220 279	4.3 4.1	B51	3362

*1 NaOH/W *2 NaOC₂H₅/A *3 0.5N Na₂CO₃/W *4 5% NaOH/W

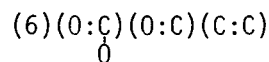
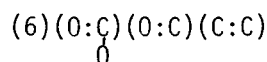


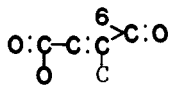
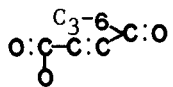
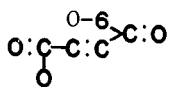
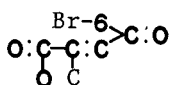
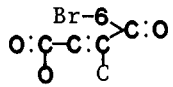
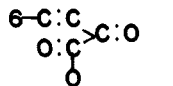
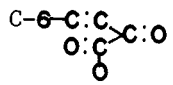
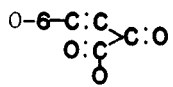
system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	ethyl α -benzamido-p-chlorocinnamate	A	224 288	4.3 4.3	B51	3363
$I_2O-6-C:C-C:C:O$ 	α -acetamido-4-hydroxy-3,5-diodocinnamic acid	A	245 298	4.4 4.2	B51	3364
$C-6-C:C-C:C-C:C:O$ 	4-(1,2,3,4-tetrahydro-1-naphthylidene)-crotonic acid	A	239.5 324	3.9 4.5	D39	3365
$O_3-6-C:C-C:C-C:C:O$ 	5-(3,4,5-trimethoxyphenyl)-2,4-pentadienoic acid	A	244 319	4.2 4.5	D39	3366
	methyl 5-(3,4,5-trimethoxyphenyl)-2,4-pentadienoate	A	249 332	4.2 4.5	D39	3367
$6-C:C-C:C-C:C:O$ 	α -mercapto-5-phenyl-2,4-pentadienoic acid	A	238 340	3.9 4.3	C4	3368
	2,2'-dithiobis(5-phenyl-2,4-pentadienoic acid)	A	238 325	4.3 4.8	C4	3369
$(6)(O:C)_2(C:C)_2-C$ 	4-benzylidene-3-methyl-2-pentenedioic acid	cH	271	4.2	P11	3370
	4-benzylidene-3-methyl-2-pentenedioic anhydride	iP	337.5	4.3	P11	3371
$(6)(O:C)_2(C:C)_3-C$ 	4-cinnamylidene-3-methyl-2-pentenedioic acid	cH	313	4.5	P11	3372
	4-cinnamylidene-3-methyl-2-pentenedioic anhydride	cH	388	4.6	P11	3373
$6-C:C-C:C:O$ 	α -phenyl-cis-cinnamic acid	A	228 294	4.1 4.4	C71	3374
	α -phenyl-trans-cinnamic acid	A	220 274	4.2 4.2	C71	3375
	methyl α -phenyl-cis-cinnamate	A	284	4.3	C71	3376
	methyl α -phenyl-trans-cinnamate	A	284	4.2	C71	3377
$6-C:C-C:C:O$ 	α -(p-chlorophenyl)-cis-cinnamic acid	A	228 295	4.1 4.4	C71	3378
	α -(p-chlorophenyl)-trans-cinnamic acid	A	226 282	4.3 4.1	C71	3379
	methyl α -(p-chlorophenyl)-cis-cinnamate	A	288	4.4	C71	3380
	methyl α -(p-chlorophenyl)-trans-cinnamate	A	224 283	4.4 4.3	C71	3381



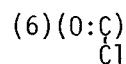
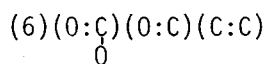
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-(carboxymethyl)-3,3-diphenylacrylic acid	A	264	4.0	F49	3382
	2-(carboxymethyl)-3,3-bis(p-methoxyphenyl)acrylic acid	A	236 278	4.2 4.2	K36	3383
	methyl p-(p-chloro-cis-styryl)benzoate	A	236 296	4.2 4.4	C72	3384
	methyl p-(p-chloro-trans-styryl)benzoate	A	232 326	4.2 4.6	C72	3385
	phenylpropionic acid	M	247		D41	3386
	methyl phenylpropionate	M	255		D41	3387
	azobenzene-4-carboxylic acid	*1	325		M14	3388
	4'-(dimethylamino)azobenzene-2-carboxylic acid	9.0	430	4.3	K40	3389
	4'-(dimethylamino)azobenzene-3-carboxylic acid	9.0	455	4.4	K40	3390
	4'-(dimethylamino)azobenzene-4-carboxylic acid	9.0	465	4.4	K40	3391
	4'-hydroxyazobenzene-2-carboxylic acid	*1	348		M14	3392
	4'-hydroxyazobenzene-4-carboxylic acid	9.0	440	4.3	K40	3393
		*1	355		M14	3394
	2-hydroxy-5-methylazobenzene-2'-carboxylic acid	*1	332		M14	3395
	2-hydroxy-5-methylazobenzene-4'-carboxylic acid	*1	330		M14	3396
	azobenzene-4,4'-dicarboxylic acid	*2	225 331 ~430	4.1 4.4 3.1	R11	3397
	methyl azobenzene-4,4'-dicarboxylate	A	226 322 427	4.0 4.5 3.0	R11	3398
	azoxybenzene-4,4'-dicarboxylic acid	*2	268 334	4.1 4.3	R11	3399

*1 Na salt/W *2 anion



system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	3-benzoyl-cis-crotonic acid	A	no		L35	3419
		*2	246	4.1	L35	3420
	3-benzoyl-trans-crotonic acid	A	245	4.1	L35	3421
		*2	250	4.1	L35	3422
	3-(2,4,6-trimethylbenzoyl)-trans-acrylic acid	A	296	3.1	J9	3423
	3-(o-hydroxybenzoyl)-trans-acrylic acid	A	250 355	4.0 3.6	J9	3424
		*1	238 413	4.3 3.5	J9	3425
	3-(p-bromobenzoyl)-2-methyl-cis-acrylic acid	A	no		L35	3426
		*2	275	4.2	L35	3427
	3-(p-bromobenzoyl)-2-methyl-trans-acrylic acid	A	273	4.2	L35	3428
		*2	275	4.2	L35	3429
	methyl 3-(p-bromobenzoyl)-2-methyl-trans-acrylate	A	277	4.1	L35	3430
	3-(p-bromobenzoyl)-cis-crotonic acid	A	no		L35	3431
		*2	260	4.1	L35	3432
	3-(p-bromobenzoyl)-trans-crotonic acid	A	275	4.2	L35	3433
		*2	275	4.2	L35	3434
	methyl 3-(p-bromobenzoyl)-cis-crotonate	A	262	4.1	L35	3435
	methyl 3-(p-bromobenzoyl)-trans-crotonate	A	267	4.1	L35	3436
	methyl 2-oxo-4-phenyl-3-butenolate	M	227.5 312	3.8 4.2	S64	3437
	methyl 2-oxo-4-(p-tolyl)-3-butenolate	M	233.5 324.5	3.8 4.3	S64	3438
	methyl 4-(p-methoxyphenyl)-2-oxo-3-butenolate	M	241 347.5	3.9 4.3	S64	3439

*1 KOH/A *2 anion



system	compound	solv.	$\lambda_{max.}$	loge	ref.	no.
$\begin{array}{c} Br-C \\ \\ O=C \\ \\ O=C \\ \\ O=C \end{array}$	methyl 4-(p-bromophenyl)-2-oxo-3-butenate	M	232 318.5	3.9 4.3	S64	3440
$\begin{array}{c} Br \\ \\ O-C \\ \\ O=C \\ \\ O=C \end{array}$	methyl 3-bromo-4-(p-ethoxyphenyl)-2-oxo-3-butenate	iO	240 336.5	3.9 4.4	S63	3441
$\begin{array}{c} O-C \\ \\ O \\ \\ N \end{array}$	N,N-bis(cyanomethyl)phthalamidic acid	M	227 275		S2g	3442
$\begin{array}{c} C \\ \\ S \end{array}$	cyclohexyl benzenecarbothiolate		235 268	4.1 3.9	K44	3443
	phenyl benzenecarbothiolate	A	239 267	4.2 3.9	C33	3444
		cH	239 270	4.3 3.9	C33	3445
$\begin{array}{c} O-C \\ \\ S \end{array}$	cyclohexyl o-hydroxybenzenecarbothiolate		271 328	3.9 3.9	K44	3446
$\begin{array}{c} O-C \\ \\ Cl \end{array}$	o-methoxybenzoyl chloride	cH	272 280		S2g	3447
$\begin{array}{c} Cl_2-C \\ \\ Cl \end{array}$	3,4-dichlorobenzoyl chloride	cH	256 263		S2g	3448

PART 22. (6)(O:N)-SYSTEM


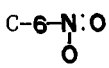
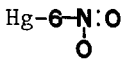
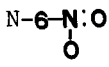
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
6-N:O	nitrosobenzene	A	286	3.9	F47	3449
		cH	278	4.0	F47	3450
		E	284	4.1	F47	3451
C-6-N:O	o-nitrosotoluene	A	286	3.8	F15	3452
	m-nitrosotoluene	A	282	3.8	F15	3453
	p-nitrosotoluene	A	314	4.0	F15	3454
C₃-6-N:O	2-nitrosomesitylene	A	295	4.0	N3n	3455
			321	4.0		
			790	1.3		
N-6-N:O	N-ethyl-p-nitrosoaniline	A	271-3 415-6	3.7 4.5	S30	3456
	N,N-dimethyl-p-nitrosoaniline	A	273 423	3.8 4.5	K77	3457
		B	405	4.4	K68u	3458
		*1	357	4.3	B155	3459
	N,N-diethyl-p-nitrosoaniline	A	274-6 424-6	3.7 4.5	S30	3460
	p-nitroso-N-phenylaniline	*2	258-60 405-7	3.6 4.3	S30	3461
		*3	291-4 390-2	3.7 4.4		
O-6-N:O	p-nitrosophenol [enol form of p-benzo-quinone oxime]	*2	302	4.0	M71	3463
	p-nitrosoanisole	E	284 323 444	3.7 4.3 -1.8	A21	3464
		*3	328	4.1	H71	3465
Cl-6-N:O	p-chloronitrosobenzene	A	312.5	4.0	T15	3466
ClO-6-N:O	3-chloro-4-nitrosophenol	*2	299	3.8	H71	3467
		*3	401	3.3	H71	3468

*1 HCl/W *2 acid solution *3 alkaline solution

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	3-chloro-4-nitrosoanisol	*1	362.5	4.0	H71	3469
Br- 6-N:O	p-bromonitrosobenzene	A	315	4.0	T15	3470
BrO- 6-N:O	3-bromo-4-nitrosophenol	*2	304	4.1	H71	3471
		*3	401.5	3.8	H71	3472
	3-bromo-4-nitrosoanisol	*1	362.5	4.1	H71	3473
I- 6-N:O	p-iodonitrosobenzene	A	332	4.0	T15	3474
IO- 6-N:O	3-iodo-4-nitrosophenol	*2	308	4.1	H71	3475
		*3	405	4.0	H71	3476
	3-iodo-4-nitrosoanisol	*1	362.5	4.0	H71	3477
O:N- 6-N:O O ₂	1,3-dihydroxy-2,4-dinitrosobenzene	A	235 280 332	3.7 4.1 4.0	E5	3478

*1 neutral solution *2 acid solution *3 alkaline solution

PART 23. (6)(O:N)-SYSTEM
O

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	nitrobenzene	A	259.5	4.0	B159n	3479
		H	252 280 330	4.0 3.0 2.1	W45	3480
	o-nitrotoluene	W	202.5 266 325	4.1 3.7 3.1	D35	3481
		*1	257	3.8	M52	3482
	m-nitrotoluene	10	256.5	3.9	B146n	3483
		W	203 273 315	4.2 3.9 3.1	D35	3484
		*1	264	4.1	D35	3485
	p-nitrotoluene	6.0	217 285	3.8 4.0	D33	3486
		*1	272	4.1	M54	3487
	p-nitrophenylacetonitrile	H	255	4.0	B159n	3488
	p-nitrophenylacetic acid	A	272	4.0	B152n	3489
	α,α,α -trifluoro-m-nitrotoluene	A	247	3.8	S84	3490
	α -chloro-p-nitrotoluene	H	258	4.1	B159n	3491
	α -bromo-p-nitrotoluene	H	264	4.2	B159n	3492
	bis(p-nitrophenyl)mercury	A	280	4.7	L6	3493
	p-nitrophenylmercuric chloride	A	269	4.7	L6	3494
	o-nitroaniline	A	231 276 403-4	4.3 3.7 3.7	S30	3495
		*1	275 404	3.7 3.7	D14	3496
		*2	223.5 282.5 412	4.2 3.7 3.7	D35	3497


*1 10% HCl/W *2 0.1N NaOH/W

(6)(0:N)
0(6)(0:N)
0

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	m-nitroaniline	A	235 370-7	4.2 3.2	S30	3498
		*1	233 375	4.3 3.2	D14	3499
		*2	226 280 358	4.2 3.7 3.2	D35	3500
	p-nitroaniline	A	228-9 371-2	3.8 4.2	S30	3501
		*1	230 374	4.1 4.2	D14	3502
		*3	226 381	3.8 4.1	D33	3503
	N-ethyl-o-nitroaniline	A	232 279-80 425	4.3 3.7 3.8	S30	3504
	N-ethyl-p-nitroaniline	A	231-2 386	3.9 4.3	S30	3505
	N,N-dimethyl-o-nitroaniline	A	245.5 416	4.3 3.5	M54	3506
		W	242 441	4.2 3.3	M54	3507
		*4	248 439	4.0 2.8	M54	3508
		*5	262	3.9	M54	3509
	N,N-dimethyl-m-nitroaniline	A	246 400	4.4 3.1	M54	3510
		W	247 385	4.2 3.0	M54	3511
		*4	247 378	4.2 2.9	M54	3512
		*5	251	4.0	M54	3513
	N,N-dimethyl-p-nitroaniline	A	2200 386.5	4.2 4.3	M54	3514
		W	232.5 422	4.0 4.3	M54	3515

*1 10% HCl/W *2 0.1N NaOH/W *3 1N NaOH *4 5eq. HCl/W *5 5000 eq. HCl/W

(6)(O:N)
0(6)(O:N)
0



system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		*1	\sim 231 422	4.0 4.3	M54	3516
		*2	\sim 240	3.9	M54	3517
	bis(o-nitrophenyl)amine	A	225 264 417-23	4.2 4.2 4.0	S30	3518
	bis(p-nitrophenyl)amine	A	232 402	4.1 4.6	S30	3519
	N-(p-nitrophenyl)diphenylamine	A	255 284 394-5	4.0 3.9 4.3	S30	3520
	N,N-bis(p-nitrophenyl)aniline	A	231-3 404-5	4.1 4.4	S30	3521
	p-nitrophenylbiguanide hydrochloride	W	230 324		M43n	3522
	4,6-diamino-1,2-dihydro-2,2-dimethyl- 1-(p-nitrophenyl)-1,3,5-triazine hydrochloride	W	240		M43n	3523
	o-nitroacetanilide	A	233 270 340	4.2 3.6 3.4	U1c	3524
	N,N'-diethyl-N,N'-bis(p-nitrophenyl)urea	A	323-4	4.2	S30	3525
	ethyl p-nitroaniline-N-carbothionate	M	236 333		S2g	3526
	N-ethyl-N-(o-nitrophenyl)nitrosamine	A	240-2	4.1	S30	3527
	N-ethyl-N-(p-nitrophenyl)nitrosamine	A	221-3 312-4	4.0 4.2	S30	3528
	bis(p-nitrophenyl)nitrosamine	A	308-10	4.3	S30	3529
NC- 	3-nitro-o-toluidine	A	235 352.5	4.2 3.1	M54	3530
		W	230 345	4.1 3.2	M54	3531
		*3	252.5	3.7	M54	3532
	4-nitro-o-toluidine	A	230 379	3.8 4.2	M54	3533

*1 5 eq. HCl/W *2 5000 eq. HCl/W *3 10% HCl/W

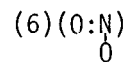
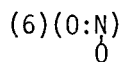
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		W	380	4.1	M54	3534
		*1	263	3.7	M54	3535
	5-nitro-o-toluidine	A	231 288.5 373	4.1 3.7 3.2	M54	3536
		W	230 292 353		M54	3537
				3.6 3.2		
		*1	273.5	4.0	M54	3538
	6-nitro-o-toluidine	A	230 283.5 408	4.2 3.7 3.6	M54	3539
		W	292.5 416	4.3 3.7	M54	3540
		*1	276 416	3.7 3.3	M54	3541
	2-nitro-m-toluidine	A	236 282.5 404	4.2 3.5 3.5	M54	3542
		W	229 285 403.5	4.3 3.6 3.3	M54	3543
		*1	258.5	3.7	M54	3544
	4-nitro-m-toluidine	A	233 373.5	3.9 4.1	M54	3545
		W	378	4.1	M54	3546
		*1	256	3.8	M54	3547
	5-nitro-m-toluidine	A	235 287 375	4.2 3.6 3.1	M54	3548
		W	228 292 ~368	4.2 3.7 3.2	M54	3549
		*1	263	3.8	M54	3550

*1 10% HCl/W

(6)(0:N)
0(6)(0:N)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	6-nitro-m-toluidine	A	231	4.3	M54	3551
			286	3.9		
			405	3.9		
		W	225	4.4	M54	3552
			296	3.9		
			410	3.8		
		*1	225	4.1	M54	3553
			286	3.9		
			416	3.5		
	2-nitro-p-toluidine	A	230	4.3	M54	3554
			280	3.8		
			417.5	3.8		
NC ₂ - 	3-nitro-p-toluidine	A	235	4.2	M54	3557
			373.5	3.2		
		W	355	3.1	M54	3558
		*1	256	3.7	M54	3559
	α,α,α -trifluoro-2-nitro-m-toluidine	A	233.5	4.2	S84	3560
			395	3.4		
P- 	α,α,α -trifluoro-4-nitro-m-toluidine	A	234.5	3.9	S84	3561
			370	4.1		
		*2	245	3.7	S84	3562
	α,α,α -trifluoro-6-nitro-m-toluidine	A	232.5	4.3	S84	3563
			390-400	3.7		
		*2	232	3.9	S84	3564
			410	3.1		
	2,4-dimethyl-5-nitroaniline	A	230-50		M54	3565
			286			
	2,4-dimethyl-6-nitroaniline	A	286		M54	3566
			425			
	bis(m-nitrophenyl)phosphinic acid	A	263	4.2	J6	3567

*1 10% HCl/W *2 10M HCl/A



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	bis(p-nitrophenyl)phosphinic acid	A	218 274	4.4 4.3	J6	3568
		*1	272	4.3	J6	3569
	m-nitrophenylphosphonic acid	A	263	3.8	J6	3570
	p-nitrophenylphosphonic acid	A	213 270	3.8 4.0	J6	3571
		*2	272	4.0	J6	3572
		*3	216 278	3.7 4.0	J6	3573
$\begin{array}{c} O-6-N:O \\ \\ O \end{array}$	o-nitrophenol	A	272-3 345-7	3.8 3.5	S30	3574
		3.0	209 278.5 351	4.2 3.8 3.5	D35	3575
		*4	227.5 282 416	4.2 3.6 3.7	D35	3576
	m-nitrophenol	A	229-30 269-71 330-4	4.0 3.7 3.3	S30	3577
		3.0	208 228.5 273.5 333	4.1 3.9 3.8 3.3	D35	3578
		*4	226.5 251.5 291 392	4.3 4.0 3.7 3.2	D35	3579
	p-nitrophenol	A	224-6 311-3	3.9 4.0	S30	3580
		3.0	225.5 317.5	3.8 4.0	D33	3581
		*5	226 402.5	3.8 4.3	D33	3582
	o-nitroanisole	A	258.5 317	3.5 3.5	B157	3583

*1 anion in W *2 1st anion in W *3 2nd anion in W *4 0.1N NaOH/W *5 1N NaOH/W

(6)(O:N)
0(6)(O:N)
0

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$\text{O}_2-\text{C}_6\text{H}_4-\text{N}(\text{O})$	m-nitroanisole	A	268 325	3.8 3.4	B157	3584
		W	210.5 228 273.5	4.1 3.9 3.8	D35	3585
	p-nitroanisole	A	305	4.1	B157	3586
	o-nitrophenoxybenzene	A	260 315	3.6 3.3	U4	3587
	p-nitrophenoxybenzene	A	213 302	4.2 4.2	U4	3588
	1,2-dihydroxy-4-nitrobenzene	*1	245 343-6	3.9 3.9	S30	3589
		*2	268-70 423-5	3.8 4.2	S30	3590
	2,4-dihydroxy-1-nitrobenzene	A	345	4.1	B157	3591
	2-hydroxy-4-methoxy-1-nitrobenzene	A	334.5	4.0	B157	3592
	4-hydroxy-2-methoxy-1-nitrobenzene	A	329.5	4.0	B157	3593
	2-hydroxy-4-phenoxy-1-nitrobenzene	A	238 350	4.0 4.2	U4	3594
	2,4-dimethoxy-1-nitrobenzene	A	322.5	3.9	B157	3595
	2-methoxy-4-phenoxy-1-nitrobenzene	A	279 323	3.8 3.8	U4	3596
	4-methoxy-2-phenoxy-1-nitrobenzene	A	295	3.8	U4	3597
$\text{OC}_2-\text{C}_6\text{H}_3-\text{N}(\text{O})$	2,3-dimethyl-6-nitrophenol	*3	430	3.7	H76	3598
	2,4-dimethyl-6-nitrophenol	*3	446	3.6	H76	3599
	2,6-dimethyl-4-nitrophenol	A	323	4.0	B157	3600
	3,4-dimethyl-2-nitrophenol	*3	418-20	2.9	H76	3601
	3,4-dimethyl-6-nitrophenol	*3	432	3.7	H76	3602
	3,5-dimethyl-2-nitrophenol	*3	412	3.2	H76	3603
	3,5-dimethyl-4-nitrophenol	A	281 351	3.5 3.2	B157	3604

*1 acid A *2 alkaline M *3 Na salt in W

(6)(0:N)
0(6)(0:N)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	3,6-dimethyl-2-nitrophenol	*1	424	2.9	H76	3605
	3,6-dimethyl-4-nitrophenol	*1	410	4.3	H76	3606
	2,6-dimethyl-4-nitroanisole	A	289	4.0	B157	3607
	3,5-dimethyl-4-nitroanisole	A	276 349	3.5 3.2	B157	3608
ON- 6 -N:O O	2-hydroxy-5-nitroaniline	5.0	221 256 315 370	4.0 4.0 3.7 3.7	D35g	3609
	4-methoxy-2-nitroacetanilide	M	234		S2g	3610
	p-mercaptanitrobenzene	A	317.5	4.4	B156n	3611
		*2	415	4.2	B159n	3612
S- 6 -N:O O	o-methylthionitrobenzene	A	242 373	4.3 3.5	M10	3613
	m-methylthionitrobenzene	A	252 312 347	4.3 2.8 3.1	M10	3614
	p-methyltrinitrobenzene	A	340	4.1	M10	3615
	dimethyl-(p-nitrophenyl)sulfonium methysulfate		252	4.3	B94	3616
	o-nitrophenylthiobenzene	A	240 368	4.2 3.6	K44	3617
	p-nitrophenylthiobenzene	A	337	4.1	K44	3618
	p-nitrophenyl sulfide	A	235 250 341	4.1 4.1 4.2	S86	3619
	p-nitrophenyl sulfoxide	A	268	4.3	S86	3620
	methyl p-nitrophenyl sulfone		248	4.1	B94	3621
	p-nitrophenyl sulfone	A	265	4.3	S86	3622
	o-fluoronitrobenzene		251	3.8	U1	3623
	m-fluoronitrobenzene		255	3.9	U1	3624
F- 6 -N:O O	p-fluoronitrobenzene		212 264	4.0 3.9	U1	3625

*1 Na salt in W *2 alkaline M

(6)(O:N)
0(6)(O:N)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
<chem>Clc1ccc(cc1)[N+](=O)[O-]</chem>	o-chloronitrobenzene	A	251	3.6	M54	3626
		W	209 260 310	4.1 3.6 3.1	D35	3627
	m-chloronitrobenzene	A	256.5	3.9	M54	3628
		W	208.5 264 313	4.2 3.9 3.1	D35	3629
	p-chloronitrobenzene		216 272	3.9 4.0	U1	3630
		6.0	217 280	3.9 4.0	D33	3631
<chem>Clc1cc(ccc1[N+](=O)[O-])Cl</chem>	1,2-dichloro-4-nitrobenzene	M	211 276	4.2 4.0	D35g	3632
	1,4-dichloro-2-nitrobenzene	M	220 258 314	4.3 3.5 3.2	D35g	3633
<chem>Clc1ccccc1[N+](=O)[O-]</chem>	4-chloro-2-nitrotoluene	M	213 262 315	4.3 3.7 3.2	D35g	3634
<chem>Clc1ccc(cc1[N+](=O)[O-])C(F)(F)F</chem>	2-chloro- α,α,α -trifluoro-5-nitrotoluene	A	263	4.0	S84	3635
	2-chloro-4-nitroaniline	M	no		S2g	3636
	4-chloro-2-nitroaniline	M	233 279 425	4.3 3.7 3.7	D35g	3637
<chem>Clc1cc(N)ccc1[N+](=O)[O-]</chem>	2,6-dichloro-4-nitroaniline	M	245 350		S2g	3638
<chem>Clc1ccc(O)cc1[N+](=O)[O-]</chem>	2-chloro-4-nitrophenol	*1	210 231 317	4.1 3.9 3.9	D35g	3639
	4-chloro-2-nitrophenol	H	265		S2g	3640
	4-chloro-2-nitroanisole	M	220.5 265 349	4.3 3.6 3.4	D35g	3641
<chem>BrCc1ccccc1[N+](=O)[O-]</chem>	o-bromonitrobenzene		255	3.5	U1	3642

*1 0.1N HCl/M

(6)(0:N)
0(6)(0:N)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{Br}_2-\text{C}_6\text{H}_4-\text{N}(\text{O})$	m-bromonitrobenzene		259	3.8	U1	3643
	p-bromonitrobenzene		216 276	3.9 4.0	U1	3644
	1,4-dibromo-2-nitrobenzene	A	223.5 309	4.2 3.2	H5	3645
		W	226 315	4.2 3.2	H5	3646
$\text{BrO}_2-\text{C}_6\text{H}_4-\text{N}(\text{O})$		*1	226.5 272.5 340	4.2 3.5 3.2	H5	3647
	1-bromo-2,4-dihydroxy-5-nitrobenzene	*2	410	4.2	K1	3648
		*3	340	4.1	K1	3649
		*4	396	4.4	K1	3650
	1-bromo-2-hydroxy-4-methoxy-5-nitrobenzene	*2	248 398	3.9 3.9	K1	3651
		*3	218 247 354	4.2 3.9 3.8	K1	3652
		*4	268 407	3.7 4.3	K1	3653
	1-bromo-4-hydroxy-2-methoxy-5-nitrobenzene	*2	220 306 360	4.2 3.8 3.8	K1	3654
		*3	220 306 360	4.2 3.8 3.9	K1	3655
		*4	231 307 418	4.3 3.8 3.9	K1	3656
	1-bromo-2,4-dimethoxy-5-nitrobenzene	*2	220 245 286 350	4.2 4.0 3.7 3.8	K1	3657
		*3	220 246 289 354	4.3 4.1 3.8 3.9	K1	3658

*1 conc. H_2SO_4 *2 50% A *3 0.1N HCl + 50% A (1:1) *4 0.1N NaOH + 50% A (1:1)

(6)(0:N)
0(6)(0:N)
0

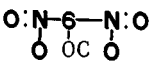
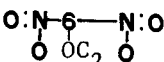
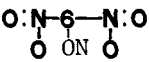
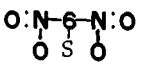
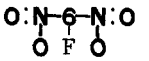
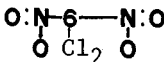
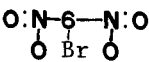
system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
		*1	220.5 246 290 354	4.2 4.0 3.7 3.8	K1	3659
<chem>BrC1=CC(=CC=C1[N+](=O)[O-])Br</chem>	2,6-dibromo-4-nitrophenol	D	243 300		S2g	3660
<chem>BrC1=CC(=CC=C1[N+](=O)[O-])Cl</chem>	1-bromo-4-chloro-2-nitrobenzene	A	222.5 305	4.3 3.2	H5	3661
		W	222.5 255 315	4.2 3.4 3.2	H5	3662
		*2	224 278 330	4.2 3.4 3.2	H5	3663
	4-bromo-1-chloro-2-nitrobenzene	A	223.5 310	4.3 3.2	H5	3664
		W	225 313	4.2 3.2	H5	3665
		*2	224.5 274.5 337.5	4.2 3.5 3.2	H5	3666
<chem>Ic1ccccc1[N+](=O)[O-]</chem>	o-iodonitrobenzene		228 310	4.1 3.2	U1	3667
	m-iodonitrobenzene		260 310	3.8 3.1	U1	3668
	p-iodonitrobenzene		219 294	3.9 4.1	U1	3669
<chem>O=[N+]([O-])c1cccc1[N+](=O)[O-]</chem>	m-dinitrobenzene	W	241.5 305	4.2 3.0	D35	3670
		*3	565		H5n	3671
	p-dinitrobenzene	*4	266	4.2	D33	3672
<chem>O=[N+]([O-])c1cc(C)ccc1[N+](=O)[O-]</chem>	2,4-dinitrotoluene	A	239-42	4.2	S30	3673
		*3	572		H5n	3674
		7.4	250	4.1	C16	3675

*1 0.1N NaOH + 50% A (1:1) *2 conc. H₂SO₄ *3 butanone + KOH/W *4 0.1N NaOH/W

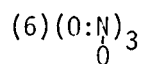
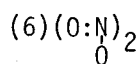
(6)(O:N)₂
0(6)(O:N)₂
0

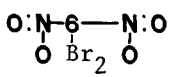
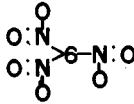
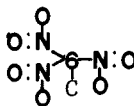
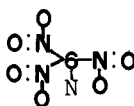
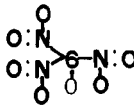
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$\begin{array}{c} \text{O}:\text{N}-\text{C}-\text{N}:\text{O} \\ \quad \\ \text{O} \quad \text{N} \quad \text{O} \end{array}$	2,4-dinitroaniline	A	226-7 257 336	4.0 4.0 4.2	S30	3676
		7.4	345	4.1	C16	3677
	N-ethyl-2,4-dinitroaniline	A	259-61 347	3.9 4.2	S30	3678
		cH	249 329.5	4.1 4.3	H27	3679
		M	260 348	4.0 4.3	H27	3680
	6-(2,4-dinitroanilino)hexanoic acid	7.4	365	4.3	C16	3681
	bis(2,4-dinitrophenyl)amine	A	219-20 357-9 401-2	4.3 4.2 4.4	S30	3682
	2,4-dinitrophenylsemicarbazide	A	261 322	4.0 4.2	G11	3683
	N,N'-diethyl-N,N'-bis(2,4-dinitrophenyl)urea	A	290-5	4.1	S30	3684
	2,4-dinitrophenylhydrazine	M	261		S2g	3685
$\begin{array}{c} \text{O}:\text{N}-\text{C}-\text{N}:\text{O} \\ \quad \\ \text{O} \quad \text{NC} \quad \text{O} \end{array}$	4,5-dinitro-o-toluidine	A	375	4.1	M54	3686
		W	391.5	3.8	M54	3687
$\begin{array}{c} \text{O}:\text{N}-\text{C}-\text{N}:\text{O} \\ \quad \\ \text{O} \quad \text{NC}_2 \quad \text{O} \end{array}$	2,3-dimethyl-4,6-dinitroaniline	A	274 320		M54	3688
	3,4-dimethyl-2,6-dinitroaniline	A	~416		M54	3689
$\begin{array}{c} \text{O}:\text{N}-\text{C}-\text{N}:\text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	2,4-dinitrophenol	A	252-4 291-4	4.0 4.0	S30	3690
		Bu	399	4.1	C16	3691
		D	417	3.5	C16	3692
		7.4	358	4.2	C16	3693
	2,4-dinitroanisole	A	214 290	4.1 4.0	U4	3694
$\begin{array}{c} \text{O}:\text{N}-\text{C}-\text{N}:\text{O} \\ \quad \quad \\ \text{O} \quad \text{O}_2 \quad \text{O} \end{array}$	2,4-dinitro-5-phenoxyphenol	A	218 274 332 404	4.1 4.2 4.0 3.7	U4	3695

(6)(O:N)₂
0(6)(O:N)₂
0

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	2,4-dinitro-5-phenoxyanisole	A	222 265 322	4.2 4.2 3.9	U4	3696
	4-methyl-2,6-dinitrophenol	A	241 354	4.0 3.7	B157	3697
	4-methyl-2,6-dinitroanisole	A	236 312	4.0 3.4	B157	3698
	2,3-dimethyl-4,6-dinitrophenol	*1	378	4.0	H76	3699
	3,4-dimethyl-2,6-dinitrophenol	*1	426	3.8	H76	3700
	2-amino-4,6-dinitrophenol	M	228 282		S2g	3701
	3-(2,4-dinitrophenylthio)cholest-5-ene	A	228 270 340	4.0 3.8 4.1	D32	3702
	1-fluoro-2,4-dinitrobenzene	iO	no		G37n	3703
	1,4-dichloro-2,3-dinitrobenzene	A	310	3.2	H5	3704
		W	316.5	3.3	H5	3705
		*2	222.5 329	4.2 3.3	H5	3706
	1,4-dichloro-2,5-dinitrobenzene	A	312.5	3.4	H5	3707
		W	221 252.5 322.5	4.4 3.8 3.4	H5	3708
		*2	224 257.5 334.5	4.3 3.7 3.3	H5	3709
	2,5-dichloro-1,3-dinitrobenzene	A	305	3.2	H5	3710
		W	312.5	3.2	H5	3711
		*2	221 337.5	4.3 3.2	H5	3712
	1-bromo-2,4-dinitrobenzene	7.4	265	4.0	C16	3713

*1 Na salt *2 conc. H₂SO₄



system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
	1,4-dibromo-2,3-dinitrobenzene	A	225 312.5	4.3 3.2	H5	3714
		W	222.5 321	4.3 3.4	H5	3715
		*1	226 345	4.2 3.1	H5	3716
	1,4-dibromo-2,5-dinitrobenzene	A	227 317.5	4.4 3.4	H5	3717
		W	229 326.5	4.4 3.4	H5	3718
		*1	233 352.5	4.3 3.3	H5	3719
	1,3,5-trinitrobenzene	A	225 240	4.2 4.2	H63n	3720
		B	303 370	3.6 2.2	S31u	3721
		10.2	480	4.1	H75n	3722
		*2	256 476	4.0 4.4	C2n	3723
		*3	457 565-75		H5n	3724
	2,4,6-trinitrotoluene	A	227	4.3	S30	3725
		*3	462 540		H5n	3726
	N-ethyl-2,4,6-trinitroaniline	A	335-8 408-12	4.2 3.8	S30	3727
	N-phenyl-2,4,6-trinitroaniline	A	233-4 366-8	4.3 4.1	S30	3728
	bis(2,4,6-trinitrophenyl)amine	*4	376-9	4.2	S30	3729
		*5	410-2	4.5	S30	3730
	N-methyl-N-(2,4,6-trinitrophenyl)nitramine	A	225	4.4	S30	3731
	2,4,6-trinitrophenol	A	355-62	4.2	F49	3732
		D	366	4.2	V10	3733

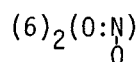
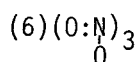
*1 conc. H_2SO_4

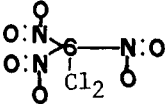
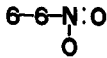
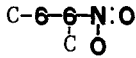
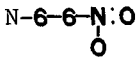
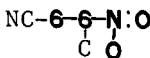
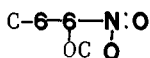
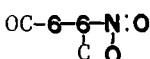
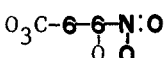
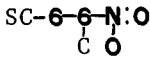
*2 NaOEt/toluene

*3 butanone + KOH/A

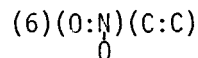
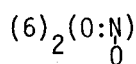
*4 acid A

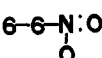
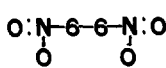
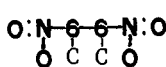
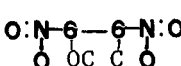
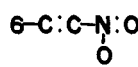
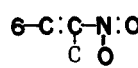
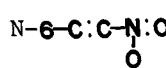
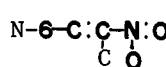
*5 alkaline A



system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
		*1	335	3.7	S30	3734
		*2	357-9	4.1	S30	3735
	2,4,6-trinitroanisole	*2	254-6 411-2 488-91	4.0 4.4 4.2	S30	3736
	2,6-dichloro-1,3,5-trinitrobenzene	M	no		S2g	3737
	4-nitrobiphenyl	A	223 306	3.9 4.1	H66	3738
	2-nitrofluorene	A	233 330	4.0 4.3	W9	3739
	4-nitrofluorene	A	255 335	4.3 3.8	W9	3740
	4-amino-4'-nitrobiphenyl	A	247.5 379	4.1 4.2	S4	3741
		*3	221 301	4.1 4.2	S4	3742
	2-amino-7-nitrofluorene	A	261 400	4.1 4.3	S4	3743
		*3	234 323	4.1 4.3	S4	3744
	1-hydroxy-2-nitrofluorene	A	261 350	3.8 4.2	W9	3745
	1-hydroxy-4-nitrofluorene	A	257 329	4.2 3.9	W9	3746
	3-hydroxy-2-nitrofluorene	A	350	4.2	W9	3747
	2-hydroxy-7-nitrofluorene	A	246 366	4.1 4.3	W9	3748
	2-methoxy-7-nitrofluorene	A	243 360	4.1 4.3	W9	3749
	3-(4,4',5,6-tetramethoxy-2'-nitro-2-biphenyl)propionic acid	A	233 326	4.2 3.4	F3	3750
	2-methylsulfonyl-5-nitrofluorene	A	258 ~330		S15	3751

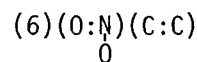
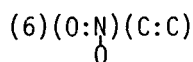
*1 acid A *2 alkaline A *3 hydrochloride in A



system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
	2-methylsulfonyl-7-nitrofluorene	A	249 317	4.0 4.4	S15	3752
Br- 	4-bromo-4'-nitrobiphenyl	A	277.5 309	4.2 4.3	H66	3753
	2,2'-dinitrobiphenyl	A	257	4.1	W35	3754
	3,3'-dinitrobiphenyl	A	337	4.3	W35	3755
	4,4'-dinitrobiphenyl	A	305	4.4	W35	3756
	2,5-dinitrofluorene	A	227 300 335	4.2 4.1 4.2	W9	3757
	2,7-dinitrofluorene	A	240 331	3.9 4.5	S13	3758
	3-hydroxy-2,4-dinitrofluorene	A	360	4.1	W9	3759
$(6)_2(O:N)_4^{-O_2}$	4,4'-dihydroxy-3,3',5,5'-tetranitro- biphenyl	*1	355	3.8	H10	3760
		*2	447	4.0	H10	3761
	2,2'-dimethoxy-4,4',6,6'-tetranitro- biphenyl	D	252		S2g	3762
	β -nitrostyrene	A	227 309	4.0 4.2	B121	3763
		H	223 299	4.0 4.3	B121	3764
	2-nitro-1-phenylpropene	A	226 305	4.0 4.1	B121	3765
		H	223 293	4.0 4.1	B121	3766
	p-(diethylamino)- β -nitrostyrene	M	266.5 325		S2g	3767
	p-(acetamido)- β -nitrostyrene	M	241 346		S2g	3768
	1-[p-(dimethylamino)phenyl]-2-nitro- propene	cH	251		S2g	3769
	1-(p-acetamidophenyl)-2-nitropropene	M	242 337		S2g	3770

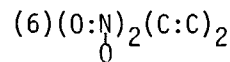
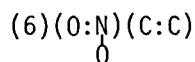
*1 M containing HCl

*2 M containing NaOCH₃



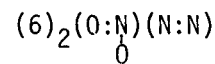
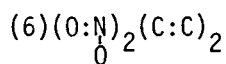
system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
$\text{O}-\text{C}-\text{C}-\text{N}-\text{O}$ $\begin{array}{c} \text{O} \\ \\ \text{O}-\text{C}-\text{C}-\text{N}-\text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	o-hydroxy- β -nitrostyrene	M	~ 246 303		S2g	3771
	m-hydroxy- β -nitrostyrene	M	250 307		S2g	3772
	p-hydroxy- β -nitrostyrene	M	239.5 353		S2g	3773
	o-methoxy- β -nitrostyrene	M	301 353		S2g	3774
	m-methoxy- β -nitrostyrene	M	248 305		S2g	3775
	p-methoxy- β -nitrostyrene	M	237.5 347		S2g	3776
	p-acetoxy- β -nitrostyrene	M	227 313		S2g	3777
$\text{O}_2-\text{C}-\text{C}-\text{N}-\text{O}$ $\begin{array}{c} \text{O} \\ \\ \text{O}_2-\text{C}-\text{C}-\text{N}-\text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	2-hydroxy-3-methoxy- β -nitrostyrene	M	321		S2g	3778
	4-hydroxy-3-methoxy- β -nitrostyrene	A	245-60 376	3.9 4.2	S72	3779
		*1	269 500	3.8 4.4	S72	3780
	2,3-dimethoxy- β -nitrostyrene	M	315		S2g	3781
	3,4-dimethoxy- β -nitrostyrene	M	255 >350		S2g	3782
	3,4-methylenedioxy- β -nitrostyrene	M	257 363	3.9 4.2	KOn	3783
$\text{O}-\text{C}-\text{C}-\text{N}-\text{O}$ $\begin{array}{c} \text{O} \\ \\ \text{O}-\text{C}-\text{C}-\text{N}-\text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	1-(p-hydroxyphenyl)-2-nitropropene	M	234.5 348		S2g	3784
	1-(o-methoxyphenyl)-2-nitropropene	cH	~ 222.5 283 325		S2g	3785
	1-(p-methoxyphenyl)-2-nitropropene	M	233 342		S2g	3786
$\text{O}_2-\text{C}-\text{C}-\text{N}-\text{O}$ $\begin{array}{c} \text{O} \\ \\ \text{O}_2-\text{C}-\text{C}-\text{N}-\text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	1-(2-hydroxy-3-methoxyphenyl)-2-nitropropene	M	318		S2g	3787
	1-(4-hydroxy-3-methoxyphenyl)-2-nitropropene	M	~ 245		S2g	3788

*1 pH 10.4 in A



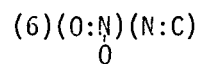
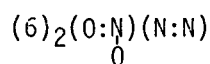
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	1-(2,3-dimethoxyphenyl)-2-nitropropene	cH	294		S2g	3789
	1-(3,4-dimethoxyphenyl)-2-nitropropene	M	~244		S2g	3790
	1-(3,4-methylenedioxy)-2-nitropropene	M	254		S2g	3791
$S-6-C:C-N:O$ 	β -nitrostyrene-o-sulfonic acid	*1	230 300		S2g	3792
$6-C:C-N:O$ 	β -chloro- β -nitrostyrene	A	226 320	4.0 4.1	B121	3793
$Cl-6-C:C-N:O$ 	o-chloro- β -nitrostyrene	M	231.5 303		S2g	3794
$Cl_2-6-C:C-N:O$ 	2,4-dichloro- β -nitrostyrene	M	235 308		S2g	3795
	2,6-dichloro- β -nitrostyrene	M	220.5 292		S2g	3796
	3,4-dichloro- β -nitrostyrene	M	233 307.5		S2g	3797
$Cl_2-6-C:C-N:O$ 	1-(2,4-dichlorophenyl)-2-nitropropene	cH	285		S2g	3798
	1-(3,4-dichlorophenyl)-2-nitropropene	M	227-8 300		S2g	3799
$ClO-6-C:C-N:O$ 	5-chloro-2-hydroxy- β -nitrostyrene	M	230.5 248 295		S2g	3800
$6-C:C-N:O$ 	β -bromo- β -nitrostyrene	A	226 324	3.9 4.1	B121	3801
$O:N-6-C:C-N:O$ 	β ,o-dinitrostyrene	M	260		S2g	3802
	β ,m-dinitrostyrene	M	271	4.2	KOn	3803
	β ,p-dinitrostyrene	M	216 304	4.3	KOn	3804
$O:N-6-C:C-N:O$ 	2-nitro-1-(o-nitrophenyl)propene	M	261		S2g	3805
	2-nitro-1-(p-nitrophenyl)propene	M	300		S2g	3806
$(6)(O:N)_2(C:C)_2$ 	m-bis(2-nitrovinyl)benzene	M	301.5		S2g	3807
	p-bis(2-nitrovinyl)benzene	M	229.5 343		S2g	3808

*1 Na salt in M



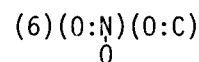
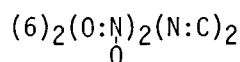
system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$(6)(O:N)_2(C:C)_2-C_2$	m-bis(2-nitropropenyl)benzene	M	299.5		S2g	3809
	p-bis(2-nitropropenyl)benzene	M	$\sim 226-7332$		S2g	3810
$(6)_2(O:N)_3(C:C)$	1-phenyl-2-(2,4,6-trinitrophenyl)-ethylene; 2,4,6-trinitrostilbene	B	365	4.0	S57n	3811
$6-N:N-6-N:O$	m-nitro-cis-azobenzene	PE	273.5 310.5	4.2 4.3	C83	3812
	m-nitro-trans-azobenzene	PE	273.5 328	4.0 4.4	C83	3813
	p-nitro-cis-azobenzene	PE	330	4.2	C83	3814
	p-nitro-trans-azobenzene	PE	327.5	4.2	C83	3815
$N-6-N:N-6-N:O$	4-(dimethylamino)-4'-nitroazobenzene	A	286 479	4.1 4.5	P33	3816
	4-[N-(2-cyanoethyl)-N-ethylamino]-4'-nitroazobenzene	A	465		K78	3817
	4-[N-ethyl-N-(3-hydroxybutyl)amino]-4'-nitroazobenzene	A	490	4.5	K78	3818
	4-morpholino-4'-nitroazobenzene	A	440	4.7	K78	3819
$O-6-N:N-6-N:O$	4-(3,5-dimethylmorpholino)-4'-nitroazobenzene	A	450	4.4	K78	3820
	4'-hydroxy-3-nitroazobenzene	A	340 435	4.3 2.9	Z3	3821
$O_2-6-N:N-6-N:O$	4-hydroxy-4'-nitroazobenzene	A	258 385	4.0 4.5	P33	3822
	2,4-dihydroxy-4'-nitroazobenzene	*1	444	4.5	K2	3823
		*2	420	4.4	K2	3824
		*3	450 570-80	4.6 4.4	K2	3825
	2-hydroxy-4-methoxy-4'-nitroazobenzene	*1	405	4.3	K2	3826
		*2	405	4.4	K2	3827
		*3	373 530	4.1 4.6	K2	3828

*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1)



system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	4-hydroxy-2-methoxy-4'-nitroazobenzene	*1	418	4.4	K2	3829
		*2	414	4.4	K2	3830
		*3	518	4.6	K2	3831
	2,4-dimethoxy-4'-nitroazobenzene	*1	403	4.3	K2	3832
		*2	402	4.3	K2	3833
$\text{N}-\text{N}-\text{N}-\text{N}-\text{N}-\text{O}$ $\text{Cl}_2 \quad \text{O}$	4'-(diethylamino)-2,6-dichloro-4-nitroazobenzene	A	450		K78	3834
	2,6-dichloro-4'-[N-(2-cyanoethyl)-N-ethylamino]-4-nitroazobenzene	A	425		K78	3835
	2,6-dichloro-4'-[N-ethyl-N-(3-hydroxybutyl)amino]-4-nitroazobenzene	A	445	4.3	K78	3836
	2,6-dichloro-4'-morpholino-4-nitroazobenzene	A	420	4.2	K78	3837
	2,6-dichloro-4'-(3,5-dimethylmorpholino)-4-nitroazobenzene	A	425	4.3	K78	3838
$\text{N}-\text{N}-\text{N}-\text{N}-\text{N}-\text{O}$ $\text{O} \quad \text{O} \quad \text{O}$	4'-(diethylamino)-2,4-dinitroazobenzene	A	525		K78	3839
	4'-[N-(2-cyanoethyl)-N-ethylamino]-2,4-dinitroazobenzene	A	500		K78	3840
	4'-[N-ethyl-N-(3-hydroxybutyl)amino]-2,4-dinitroazobenzene	A	525	4.5	K78	3841
	4'-morpholino-2,4-dinitroazobenzene	A	495	4.3	K78	3842
	4'-(3,5-dimethylmorpholino)-2,4-dinitroazobenzene	A	505	4.4	K78	3843
$\text{O}-\text{N}-\text{N}-\text{N}-\text{N}-\text{O}$ $\text{O} \quad \text{O}$	4,4'-dinitro-trans-azobenzene	C	341.5	4.5	C83	3844
$\text{N}-\text{N}-\text{N}-\text{N}-\text{N}-\text{O}$ O	4-nitro-4'-(phenylazo)biphenyl	A	345 440	4.5 3.2	D2	3845
$(6)_3(O:N)_2(N:N)_2$ O	p-bis(p-nitrophenylazo)benzene	A	368	4.6	D2	3846
$\text{O}-\text{N}-\text{C}-\text{N}-\text{N}$ O	p-nitrobenzaldehyde semicarbazone	2.6	249		C32	3847
		6.0	249		C32	3848
		11.0	249		C32	3849

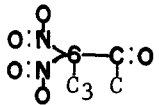
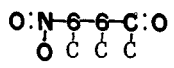
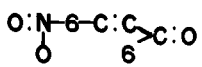
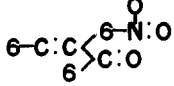
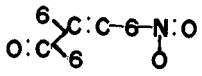
*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1)



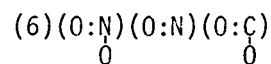
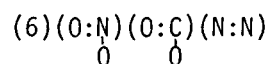
system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
$O:N-C:N-N:C-N:O$ $O \quad O$	bis(o-nitrobenzylidene)hydrazine	A	260 332	4.3 4.0	B77	3850
	bis(m-nitrobenzylidene)hydrazine	A	225 294	4.2 4.6	F16	3851
	bis(p-nitrobenzylidene)hydrazine	A	318	4.5	B77	3852
		AA	265	4.5	F15	3853
$O:N-C:N-N:C-N:O$ $O \quad C \quad C \quad O$	bis(α -methyl-m-nitrobenzylidene)-hydrazine	A	225 266	4.2 4.5	F16	3854
$O:N-N:C-C:N-N:O$ $O \quad O$	bis(m-nitrophenylimino)ethane	A	245 333	4.6 4.3	F16	3855
$O:N-N:C-C:N-N:O$ $O \quad C \quad C \quad O$	2,3-bis(m-nitrophenylimino)butane	A	234 375	4.6 3.5	F16	3856
$(6)_2(O:N)_2(N:C)_2(C:C)_2$	bis(p-nitrocinnamylidene)hydrazine	AA	312	4.6	F15	3857
$(6)_2(O:N)_2(N:C)_2(C:C)_4$	bis[5-(p-nitrophenyl)-2,4-pentadienylidene]hydrazine	AA	348	4.7	F15	3858
$O:N-N:N-C:N$ O	p-nitrobenzenediazocyanide	A	308 443	4.2 2.4	F44	3859
$O:N-C:O$ $O \quad O$	5-nitrosalicylaldehyde	M	230 310		S2g	3860
$O:N-C:O$ $O \quad C$	m-nitroacetophenone	A	230		S88	3861
	p-nitroacetophenone	A	262	4.1	T1	3862
		Hp	258	4.2	T1	3863
		W	266 ~ 310	4.1 3.4	T1	3864
		*1	286 ~ 340	4.3 3.5	T1	3865
$O:N-C:O$ $O \quad O_2 \quad C$	2,4-dihydroxy-5-nitroacetophenone	*2	207 262	4.0 4.2	K1	3866
		*3	208 261 338	4.0 4.6 3.9	K1	3867
		*4	229 291 406	4.0 4.3 4.2	K1	3868

*1 H_2SO_4 *2 50% A *3 0.1N HCl + 50% A (1:1) *4 0.1N NaOH + 50% A (1:1)

(6)(O:N)(O:C)
0(6)₃(O:N)(O:C)(C:C)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-hydroxy-4-methoxy-5-nitroacetophenone	*1	210 260 392.5	4.2 4.3 3.6	K1	3869
		*2	213 261 326	4.1 4.4 3.8	K1	3870
		*3	230 255.5 312 398	4.2 4.1 3.9 4.2	K1	3871
	4-hydroxy-2-methoxy-5-nitroacetophenone	*1	210 260 290	4.1 4.2 4.1	K1	3872
		*2	214 258 340	4.0 4.2 3.9	K1	3873
		*3	232 292 398	4.0 4.4 3.9	K1	3874
	2,4-dimethoxy-5-nitroacetophenone	*1	217 267.5 330	4.2 4.3 3.8	K1	3875
	2,4,6-trimethyl-3,5-dinitroacetophenone	cH	no		F49	3876
	2-acetyl-7-nitrofluorene	A	261 400	4.1 4.3	S16	3877
	3-(p-nitrophenyl)-1-phenyl-2-propen-1-one	A	315-7	4.5	B69	3878
	1-benzoyl-trans-1-(p-nitrophenyl)-cis-2-phenylethylene	A	252.5 327.5	4.2 4.2	B69	3879
	1-benzoyl-trans-1-(p-nitrophenyl)-trans-2-phenylethylene	A	272.5 290-3	4.3 4.3	B69	3880
	1-benzoyl-cis-2-(p-nitrophenyl)-trans-1-phenylethylene	A	251-3 327.5	4.3 4.3	B69	3881
	1-benzoyl-trans-2-(p-nitrophenyl)-trans-1-phenylethylene	A	257 321	4.2 4.2	B69	3882

*1 50% A *2 0.1N HCl + 50% A (1:1) *3 0.1N NaOH + 50% A (1:1)



system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
$\text{O}:\text{N}-\text{C}-\text{N}:\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{N} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	p-(carbamoylazo)nitrobenzene	A	283	4.2	F44	3883
$\text{O}:\text{N}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	o-nitrobenzoic acid	A	no		G23u	3884
	m-nitrobenzoic acid	M	255	3.9	G23u	3885
	p-nitrobenzoic acid	M	258	4.0	G23u	3886
		*1	264.5	4.1	D33	3887
		*2	274	4.0	D33	3888
	ethyl p-nitrobenzoate	A	259	4.0	A30n	3889
$\text{O}:\text{N}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{N} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	4-amino-2-nitrobenzoic acid		410	2.7	B99	3890
	4-hydroxylamino-3-nitrobenzoic acid		~ 560	3.8	B99	3891
$\text{O}:\text{N}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{O} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	5-nitrosalicylic acid	M	217.5 305		S2g	3892
	methyl 3-nitrosalicylate	M	286		S2g	3893
$\text{O}:\text{N}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{ON} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	3-amino-5-nitrosalicylic acid	*3	458	4.1	H79	3894
$\text{O}:\text{N}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{Cl} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	2-chloro-5-nitrobenzoic acid	M	279		S2g	3895
$(6)(O:N)_2(O:C)$ $\begin{array}{c} \text{O} \quad \text{O} \\ \quad \\ \text{O} \quad \text{O} \end{array}$	3,4-dinitrobenzoic acid		no		B95	3896
	3,5-dinitrobenzoic acid	M	230		S2g	3897
	2-heptynyl 3,5-dinitrobenzoate	cH	227	4.4	S2g	3898
$(6)(O:N)_3(O:C)$ $\begin{array}{c} \text{O} \quad \text{O} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	2,4,6-trinitrobenzoic acid	M	216		S2g	3899
$\text{O}:\text{N}-\text{C}:\text{C}-\text{C}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{O} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	p-(2-nitrovinyl)benzoic acid	M	227 306.5		S2g	3900
$\text{O}:\text{N}-\text{C}-\text{N}:\text{O}$ $\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	p-nitronitrosobenzene		760	1.7	F12	3901
$\text{O}:\text{N}-\text{C}-\text{N}:\text{O}$ $\begin{array}{c} \text{O} \quad \text{N} \quad \text{O} \\ \quad \quad \\ \text{O} \quad \text{O} \quad \text{O} \end{array}$	3-nitro-4-nitrosobenzoic acid		340	3.7	B95	3902

*1 0.1N HCl *2 1N NaOH *3 alkaline W

PART 24. OTHER AROMATIC SYSTEMS WITH (6)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6-As:O	arsenosobenzene	W	264	4.0	J5	3903
6-C:S O	cholest-5-en-3-yl benzenecarbothionate	A	239 270	4.1 3.9	F52	3904
6-C:S 6	diphenylmethanethione	E	315 620	4.2 1.8	B153u	3905
N-6-C:S N-6	bis[p-(dimethylamino)phenyl]methanethione	A	433.5	4.6	B155	3906
		E	573	2.9	B155	3907
		M	262		S2g	3908
O-6-C:S O-6	bis(p-ethoxyphenyl)methanethione	A	353.5 579	4.5 2.6	B155	3909
		E	592.5	2.6	B155	3910
		H	344 596	4.5 2.6	B155	3911
6-N:C:S	phenyl isothiocyanate	cH	279		S2g	3912
6-5:O -6 C ₂	2,5-diethyl-3,4-diphenyl-2,4-cyclopenta- dien-1-one	io	255	4.3	A17	3913

PART 25. (X:6:X)-CHROMOPHORES

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
O-N:6:N-O	o-benzophenone oxime	*1	398	3.8	G42	3914
		*2	433.5	3.7	G42	3915
	p-benzophenone oxime	E	312	4.6	A21	3916
		*1	317	4.4	G42	3917
		*2	363	4.6	G42	3918
Cl-N:6:N-Cl	N,N'-dichloro-p-benzoquinonediimine	E	303 314	4.6 4.6	A21	3919
$\begin{array}{c} \text{C-N:6:N-C} \\ \text{O} \quad \text{O} \end{array}$	N,N'-dimethyl-p-benzoquinonediimine dioxide	M	385	4.2	P7	3920
	N,N'-dicyclohexyl-p-benzoquinonediimine dioxide	M	404	4.8	P7	3921
	N,N'-bis(1-cyanocyclohexyl)-p-benzoquinonediimine dioxide	M	415	4.8	P7	3922
$\begin{array}{c} \text{C-N:6:N-6} \\ \text{O} \quad \text{O} \end{array}$	N-cyclohexyl-N'-phenyl-p-benzoquinone-diimine dioxide	C	415	4.6	P7	3923
$\begin{array}{c} \text{6-N:6:N-6} \\ \text{O} \quad \text{O} \end{array}$	N,N'-diphenyl-p-benzoquinonediimine dioxide	C	423	4.6	P7	3924
		M	272 338 417	4.6 4.6 4.7	P7	3925
$\begin{array}{c} \text{O-6-N:6:N-6-O} \\ \text{O} \quad \text{O} \end{array}$	N,N'-bis(p-methoxyphenyl)-p-benzoquinonediimine dioxide	C	431	4.6	P7	3926
$\begin{array}{c} \text{ClC-6-N:6:N-6-ClC} \\ \text{O} \quad \text{O} \end{array}$	N,N'-bis(3-chloro-o-tolyl)-p-benzoquinonediimine dioxide	C	414	4.8	P7	3927
$\begin{array}{c} (\text{N:6:N}) (\text{6})_2 (\text{O:N})_2 \\ \text{O} \quad \text{O} \quad \text{O} \quad \text{O} \end{array}$	N-(2,4-dinitrophenyl)-N'-phenyl-p-benzoquinonediimine dioxide	C	408	4.5	P7	3928
N:6:N:N	1-diazo-1,4-dihydro-4-iminobenzene	W	254 357	3.8 4.5	A26	3929
		*3	255 357	3.7 4.7	A26	3930
	1-diazo-1,4-dihydro-4-(methylimino)-benzene	W	259 368	4.9 4.4	A26	3931

*1 0.1N H₂SO₄/W *2 0.1N NaOH/W *3 hydrochloride in W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	259 371	3.7 4.7	A26	3932
	1-diazo-1,4-dihydro-4-(phenylimino)-benzene	W	394	4.5	A26	3933
		*2	248 376	3.8 4.6	A26	3934
	1-diazo-1,4-dihydro-4-(methylimino)-benzene methochloride	W	255 382	3.7 4.6	A26	3935
$C_2-N:6:C-6-N$	p-benzoquinone-1-[p-(dimethylamino)-phenylmethine]-4-dimethylimmonium perchlorate	*3	610	5.1	B139	3936
$C_2-N:6:C<6_6$	p-benzoquinone-1-diphenylmethine-4-dimethylimmonium iodide		458		B111	3937
		M	262 305	4.3 3.3	W2	3938
$C_2-N:6:C<6_6-N$	p-benzoquinone-1-[α -(p-dimethylamino-phenyl)phenylmethine]-4-dimethylimmonium perchlorate; Malachite green	W	320 425 610	4.2 4.3 5.0	S35n	3939
$C_2-N:6:C<6_6-N$	p-benzoquinone-1-bis[p-(dimethylamino)-phenyl]methine-4-dimethylimmonium perchlorate; Crystal violet	A	300 590	4.4 5.0	S35n	3940
$C_2-N:6:C<6_6-NC$	p-benzoquinone-1-[α -(p-aminophenyl)- α -(4-amino-m-tolyl)]methine-4-immonium chloride; Fuchsin	A	485	5.0	M34	3941
		W	543	4.9	M34	3942
$6-N:6:C<6_6$	p-benzoquinone-1-diphenylmethine-4-phenylimmonium chloride	M	250 298	4.0 4.2	W2	3943
$6-N:6:C<6_6$	p-benzoquinone-1-diphenylmethine-4-(N-methyl)phenylimmonium chloride	M	293	4.4	W2	3944
$6-N:6:C<6_6$	p-benzoquinone-1-(diphenylmethine)-4-diphenylimmonium chloride	M	302	4.5	W2	3945
$O:6:O$	o-benzoquinone	A	278	3.2	M17	3946
		B	390 615	3.2 1.3	N1x	3947
		C	375 568	3.2 1.5	T4c	3948
		CCl ₄	375 590	3.2 1.3	F34u	3949

*1 hydrochloride in W *2 sulfate in W *3 nitromethane

(0:6:0)

(0:6:0)

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
$\begin{array}{c} \text{O}:\text{C}:\text{O} \\ \\ \text{C} \end{array}$	p-benzoquinone	A	242 296 435	4.2 2.6 1.3	B114	3950
		C	245 281 291 437 451	4.4 2.7 2.7 1.3 1.3	B114	3951
		D	243 433	4.2 1.3	F6u	3952
		E	241 432 454	4.3 1.3 1.3	B114	3953
		H	242 281 434 457 479	4.4 2.6 1.3 1.3 1.1	B114	3954
		W	247 292 436	4.3 2.5 1.3	B114	3955
		*1	245 249 291 438	4.4 4.3 2.5 1.4	B114	3956
	3-pentadecyl-o-benzoquinone	H	388	3.4	M17	3957
	methyl-p-benzoquinone	C	252	4.4	B114	3958
			315	2.9		
			436	1.5		
			450	1.4		
		H	245	4.4	B114	3959
			308	2.9		
			434	1.4		
			455	1.4		
			475	1.1		
$\begin{array}{c} \text{O}:\text{C}:\text{O} \\ \\ \text{C}_2 \end{array}$	2,3-dimethyl-p-benzoquinone	H	250	4.3	B114	3960
			255.5	4.3		
			303	2.6		
			308	2.6		
			433	1.3		

*1 1N HCl/W

(0:6:0)

(0:6:0)

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
O:6:0 C ₃	2,5-dimethyl-p-benzoquinone	C	255.5 306 434	4.4 2.5 1.5	B114	3961
		H	250 305 437	4.3 2.5 1.4	B114	3962
	2,6-dimethyl-p-benzoquinone	H	250 303 424	4.1 2.2 1.4	B114	3963
	2,6-diethyl-p-benzoquinone	A	253	4.2	B114	3964
	2,6-heptamethylene-p-benzoquinone	A	264	4.2	B114	3965
	2,6-pentadecamethylene-p-benzoquinone	A	260	4.2	B114	3966
	trimethyl-p-benzoquinone	C	258.5 338 434	4.3 2.6 1.6	B114	3967
		H	253 327 435	4.3 2.7 1.5	B114	3968
	tetramethyl-o-benzoquinone		446		S49	3969
	tetramethyl-p-benzoquinone	C	264 339 435	4.3 2.4 1.5	B114	3970
O:6:0 C ₄		H	258.5 330.5 432	4.3 2.3 1.4	B114	3971
	2,5-bis(methylamino)-p-benzoquinone	7.0	343	4.6	M16	3972
	2,5-dianilino-p-benzoquinone	C	264 388 520	4.3 4.2 2.9	B114	3973
O:6:0 N ₂	2,5-bis(dimethylamino)-p-benzoquinone	C	368 525	4.4 2.7	B114	3974
		H	221 353 480	4.4 4.4 2.5	B114	3975
		*1	288	4.1	M16	3976
		7.0	227 377	4.4 4.4	M16	3977

*1 0.01N HCl/W

(0:6:0)

(0:6:0)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		13.0	227 377	4.4 4.4	M16	3978
$\text{O}:\text{C}:\text{O}$ O_2	2,6-dimethoxy-p-benzoquinone	C	288 332	4.2 3.2	B114	3979
$\text{O}:\text{C}:\text{O}$ OC	2-methoxy-5-methyl-p-benzoquinone	C	264 360	4.3 2.9	B114	3980
		H	258 348	4.3 2.9	B114	3981
$\text{O}:\text{C}:\text{O}$ ON	2-(dimethylamino)-5-hydroxy-p-benzoquinone	*1	282		M16	3982
		6.0	318		M16	3983
		13.0	318		M16	3984
$\text{O}:\text{C}:\text{O}$ Cl	chloro-p-benzoquinone	C	258 323 415	4.3 2.9 1.4	B114	3985
		H	251 315	4.3 3.0	B114	3986
$\text{O}:\text{C}:\text{O}$ Cl_2	2,5-dichloro-p-benzoquinone	C	274 330	4.4 2.5	B114	3987
		H	270 327	4.3 2.5	B114	3988
	2,6-dichloro-p-benzoquinone	C	275 341	4.3 2.8	B114	3989
		H	269 327	4.3 2.8	B114	3990
$\text{O}:\text{C}:\text{O}$ Cl_3	trichloro-p-benzoquinone	C	281.5 364	4.3 2.7	B114	3991
		H	278 356	4.2 2.7	B114	3992
$\text{O}:\text{C}:\text{O}$ Cl_4	tetrachloro-p-benzoquinone; chloranil	C	292 372	4.4 2.4	B114	3993
		H	291 362	4.4 2.5	B114	3994
		M	286.5		S2g	3995

*1 0.01N HCl/W

(0:6:0)

(0:6:C)(6)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:6:O Br	bromo-p-benzoquinone	C	258 338 ~440	4.1 3.0 1.4	B114	3996
		H	254 329	4.1 3.1	B114	3997
O:6:O Br ₂	2,5-dibromo-p-benzoquinone	C	291 351	4.1 2.4	B114	3998
		H	282 328 337	4.1 2.4 2.4	B114	3999
	2,6-dibromo-p-benzoquinone	C	292 362	4.2 2.9	B114	4000
		H	291 352	4.1 2.9	B114	4001
O:6:O Br ₃	tribromo-p-benzoquinone	C	301 385	4.1 2.8	B114	4002
		H	296 375	4.0 2.8	B114	4003
O:6:O Br ₄	tetrabromo-p-benzoquinone	C	314 398	4.3 2.5	B114	4004
		H	308 378	4.2 2.4	B114	4005
O:6:O - O:6:O OC OC	5,5'-dimethoxy-3,3'-dipropyldi-p-benzoquinon-2-yl		272	4.3	D13	4006
O:6:C-C O	2-methoxy-p-benzoquinone-4-(ethylmethine)	C	310	4.4	A10	4007
O:6:C-6-N	p-benzoquinone-1-[p-(dimethylamino)-phenylmethine]	B	470	4.3	H88	4008
		C	490	4.3	H88	4009
O:6:C<6 6	p-benzoquinone-1-(diphenylmethine)	E	262 362	4.4 4.5	A26	4010
O:6:C<6 6-N	p-benzoquinone-1-[α -(p-dimethylamino-phenyl)phenylmethine]	Ac	485	4.5	H88	4011
		B	472	4.5	H88	4012
		C	500	4.5	H88	4013
		cH	445	4.5	H88	4014
		M	552	4.5	H88	4015

(O:6:C)(6)₂

(O:6:N:N)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.	
$\text{O}:\overset{\text{6-N}}{\underset{\text{6-N}}{\text{C}}}$	p-benzoquinone-1-[bis(p-dimethylamino)-methine]	Ac	505	4.6	H88	4016	
		B	485	4.6	H88	4017	
		C	520	4.7	H88	4018	
		M	555	4.9	H88	4019	
		*1	600	5.0	H88	4020	
$(\text{O}:\overset{\text{6-C}}{\underset{\text{O}}{\text{C}}})(\overset{\text{6}}{\text{C}})_2(\text{O}:\overset{\text{O}}{\text{C}})-\text{O}$	p-benzoquinone-1-[α -(p-hydroxyphenyl)-o-carboxyphenylmethine]; phenolphthalein	10.2	374 552	3.8 4.4	T0n	4021	
$\text{O}:\overset{\text{6-N}}{\underset{\text{O}}{\text{C}}}$	o-benzoquinone monoxime [o-nitrophenol enol form]	*2	400	3.0	G42	4022	
		*3	470	3.8	G42	4023	
	p-benzoquinone monoxime [p-nitrophenol enol form]	E	284 392 454.5 526	4.2 1.2 0.9 0.1	A21	4024	
		*2	301.5	4.2	G42	4025	
		*3	399	4.4	G42	4026	
		E	294 392	4.4 1.3	A21	4027	
	2-chloro-p-benzoquinone 1-oxime	*1	303	4.2	H71	4028	
		*2	399	3.8	H71	4029	
	2-chloro-p-benzoquinone-1-methoxyimine	*1	318	4.2	H71	4030	
		2-bromo-p-benzoquinone 1-oxime	*1	304	3.9	H71	4031
*2	401.5		3.8	H71	4032		
2-bromo-p-benzoquinone-1-methoxyimine	*1	320	4.1	H71	4033		
	2-iodo-p-benzoquinone 1-oxime	*1	308	3.9	H71	4034	
*2		403	3.8	H71	4035		
2-iodo-p-benzoquinone-1-methoxyimine	*1	350	4.1	H71	4036		
	$\text{O}:\overset{\text{6-N}}{\underset{\text{Cl}}{\text{C}}}$	p-benzoquinone-N-chlorimine	281 348 441	4.5 1.2 1.1	A21	4037	
$\text{O}:\overset{\text{6-N}}{\underset{\text{N}}{\text{C}}}$			1-diazo-1,4-dihydro-4-oxobenzene	269 342	3.5 4.5	A23	4038

*1 HClO₄/M *2 0.1N H₂SO₄/W *3 0.1N NaOH/W *4 neutral soln. *5 alkaline W

PART 26. (7:X)- AND ($\overset{X}{\underset{X}{\text{X}}}$:7:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O-7:O	tropolone	A	228	4.4	C81	4039
			237	4.4		
			320	3.8		
			351	3.8		
	cH		220	4.4	C81	4040
			238	4.4		
			322	3.8		
			356	3.7		
	W		238	4.5	C81	4041
			316	3.9		
			347	3.8		
	*1		234	4.2	C81	4042
			329	4.1		
			392	4.1		
	4-hydroxytropolone	M	228	4.3	N19	4043
			337	4.1		
	*2		227	4.3	N19	4044
			364	4.3		
	tropolone methyl ether		235	4.5	C81	4045
			319	3.9		
			350	3.8		
	4-methoxytropolone	M	223	4.2	N19	4046
			325	4.0		
OC-7:O	4-isopropyltropolone	iO	236	4.4	D30	4047
			322	3.7		
			353	3.7		
	5-isopropyltropolone	iO	225	4.5	D30	4048
			358	3.8		
			375	3.7		
O ₂ C-7:O	3-hydroxy-5-isopropyltropolone	M	249	4.7	N16	4049
			327	3.9		
			372	4.0		
			382	3.7		
ONC-7:O	3-amino-6-methyltropolone	M	256	4.5	N16	4050
			344	4.1		
			412	3.9		

*1 0.5N NaOH/W *2 0.1N NaOH/W

(7:0)

(7:0)(0:0)
0

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
ClOC-7:0	3-chloro-6-methyltropone	M	251 329 380	4.5 3.8 3.8	N16	4051
BrO-7:0	3-bromotropone	A	257 327 368 380	4.5 3.8 3.8 3.7	C81	4052
	3-bromo-2-methoxytropone	A	254 327 361	4.6 3.9 3.9	C81	4053
BrO ₂ -7:0	4-bromo-3-hydroxytropone	M	258 330 381	4.4 3.7 3.7	N16	4054
	5-bromo-3-hydroxytropone	M	262 348 415	4.3 3.9 3.8	N16	4055
Br ₂ O-7:0	3,7-dibromotropone	A	264 335 389	4.4 3.8 3.7	C81	4056
	3,7-dibromotropone methyl ether	A	266 336	4.3 3.8	C81	4057
Br ₂ O ₂ -7:0	4,6-dibromo-3-hydroxytropone	M	263 347 392	4.5 3.9 3.7	N16	4058
Br ₃ O-7:0	3,5,7-tribromotropone		258 271 350 440	4.9 4.9 4.4 4.1	C81	4059
BrON-7:0	3-amino-5-bromotropone	M	262 340 428	4.4 4.0 3.9	N16	4060
	3-amino-6-bromotropone	M	260 350 423	4.5 4.2 3.9	N16	4061
O:7-7:0 0 0	3,5'-bitropolonyl	M	230 326 365	4.7 4.2 4.3	N13	4062
OC-7:0 C:O 0	3-carboxy-4-(carboxymethyl)tropone anhydride	D	275 315 475	4.0 4.2 3.1	C111	4063

(7:0)(0:C)(C:C)
0

(7:0)(6)

system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
$\text{O}:\text{C}-7:\text{O} \text{C}:\text{C}-\text{O}_2$ 0 0	3-carboxy-4-(carboxymethyl)tropolone anhydride enol acetate	D	290 350 470	4.2 4.2 3.0	C111	4064
$\text{O}-7:\text{O} \text{C}-\text{O}$	2-methoxy-7-(p-methoxyphenyl)tropone	M	233 283 359	4.4 4.0 4.1	N22	4065
$\text{O}_3-7:\text{O} \text{C}-\text{O}$	3,5-dihydroxy-7-phenyltropolone mono- ethyl ether	M	257 335 396	4.4 3.8 4.0	N15	4066
$\text{OC}-7:\text{O} \text{C}-\text{O}_3\text{C}$	colchicine	W	246 355	3.7 3.3	T2	4067
	isotrimethylcolchicinic acid methyl ether	A	245 343	4.5 4.3	R2g	4068
$\text{N}-7:\text{O} \text{C}-\text{O}$	2-amino-7-(p-methoxyphenyl)tropone	M	235 292 352 409	4.3 4.1 4.0 4.1	N22	4069
$\text{ON}-7:\text{O} \text{C}-\text{O}$	5-amino-3-(p-methoxyphenyl)tropolone	M	232 305 370	4.4 4.1 4.1	N22	4070
$\text{NC}-7:\text{O} \text{C}-\text{O}_3\text{C}$	isotrimethylcolchicinamide	C	245 354	4.4 4.3	R2g	4071
	trimethylcolchicinamide	A	245.5 355	4.5 4.3	R2g	4072
	N-acetyltrimethylcolchicinic isopropyl- idenhydrazide	M	260 373 405 425	4.4 4.4 4.3 4.3	N12	4073
$\text{SC}-7:\text{O} \text{C}-\text{O}_3\text{C}$	thiocolchicine	M	292 392	4.0 4.0	N12	4074
	thiocolchicine	M	277 378	4.2 4.0	N12	4075
$\text{Br}-7:\text{O} \text{C}-\text{O}$	4-bromo-2-phenyltropone	M	233 280 330	4.3 4.1 3.9	N15	4076
$\text{BrN}-7:\text{O} \text{C}-\text{O}$	7-amino-4-bromo-2-phenyltropone	M	247 355 427	4.3 4.1 4.1	N15	4077
$\text{Br}_2\text{N}-7:\text{O} \text{C}-\text{O}$	2-amino-3,5-dibromo-7-phenyltropone	M	256 355 434	4.3 4.1 4.1	N15	4078

(7:0)(6)

(7:0)(6)(0:N)(0:C)(C:C)
0 0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
BrO-7:O -6	5-bromo-3-phenyltropolone	M	280 337 380	4.1 3.9 3.9	N15	4079
	3-bromo-7-phenyltropolone	M	275 339 395	4.3 3.8 3.8	N15	4080
Br ₂ O-7:O -6	3,5-dibromo-7-phenyltropolone	M	267 344 409	4.3 3.9 3.9	N15	4081
O-7:O -C:C-6	4-styryltropolone	M	230 312 398	4.1 4.4 4.0	N17	4082
O-7:O -C:C-6-O	4-(p-methoxystyryl) tropolone	M	245 323 374	4.2 4.3 4.4	N17	4083
O-7:O -C:C-6-O ₃	4-(3,4,5-trimethoxystyryl) tropolone	M	326 360	4.3 4.2	N17	4084
O-7:O -C:C-6-N	4-[p-(dimethylamino)styryl] tropolone	M	275 335 440	4.2 4.1 4.5	N17	4085
O-7:O -C:C-6-Cl	4-(o-chlorostyryl) tropolone		240 310 398	4.2 4.5 4.0	N17	4086
6-C:C-7:O -C:O O O	3-carboxy-4-styryltropolone	M	233 310	4.2 4.5	N17	4087
O ₃ -6-C:C-7:O -C:O O O	3-carboxy-4-(3,4,5-trimethoxystyryl)- tropolone	M	245 325	4.3 4.4	N17	4088
N-6-C:C-7:O -C:O O O	4-(o-acetamidostyryl)-3-carboxytropolone	M	224 305	4.3 4.4	N17	4089
Cl-6-C:C-7:O -C:O O O	3-carboxy-4-(o-chlorostyryl) tropolone	M	310	4.4	N17	4090
O-7:O -C:C-6-N:O O	4-(o-nitrostyryl) tropolone	M	225 295 400	4.2 4.5 3.9	N17	4091
	4-(p-nitrostyryl) tropolone	M	230 263 325 348 408	4.2 4.2 4.2 4.2 4.1	N17	4092
O:N-6-C:C-7:O -C:O O O O	3-carboxy-4-(o-nitrostyryl) tropolone	M	225 290	4.3 4.5	N17	4093

(7:0)(6)(0:N)(0:C)(C:C)
0 0

(0:7:N)
0:

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
O: O: 7:N-N	3-carboxy-4-(p-nitrostyryl)tropolone	M	226	4.2	N17	4094
			325	4.5		
	p-tolyihinopurpurin	M	260 358 515	3.9 3.6 4.6	N14	4095

PART 27. (65:X)-, (66)-, AND (X:66:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
65:C-6	1-benzylideneindene	H	238	4.2	M50	4096
			280	4.3		
			340	4.3		
65:C-C:C-6	1-cinnamylideneindene	H	245	4.3	M50	4097
			297	4.3		
			371	4.8		
66	naphthalene	A	220	5.0	D1	4098
			275.5	3.8		
			301	2.5		
	naphthalene	H	221	5.2	M51	4099
			275.5	3.9		
			302	2.5		
C-66	1-methylnaphthalene	H	267	4.5	H92	4100
			360	4.3		
C-66	1-methylnaphthalene	H	220.5	5.0	M51	4101
			281	3.7		
			322	1.6		
C-66	2-methylnaphthalene	H	221	5.0	M51	4102
			275	3.7		
			319	2.5		
C ₂ -66	1,2-dimethylnaphthalene	iO	228	5.1	F49	4103
			285.5	3.8		
			322	2.9		
	1,3-dimethylnaphthalene	iO	227	5.1	F49	4104
			283	3.8		
			322	2.7		
	1,4-dimethylnaphthalene	iO	227	4.9	F49	4105
			288	3.8		
	1,5-dimethylnaphthalene	iO	227	5.1	F49	4106
			286.5	4.0		
	1,6-dimethylnaphthalene	iO	226	5.1	F49	4107
			282	3.8		
			322	3.0		
	1,7-dimethylnaphthalene	iO	227	5.1	F49	4108
			280	3.8		
			322	2.7		
	1,8-dimethylnaphthalene	iO	229	5.0	F49	4109
			285	3.9		
			322	2.0		

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₃ -66	2,3-dimethylnaphthalene	iO	226 278 320	5.2 3.8 2.5	F49	4110
	2,6-dimethylnaphthalene	iO	227 274 324	5.1 3.7 3.0	F49	4111
	2,7-dimethylnaphthalene	iO	226.5 277 321	5.1 3.7 2.4	F49	4112
	1,2-trimethylenenaphthalene	A	227 280 323	5.0 3.7 3.4	M23	4113
	acenaphthene	A	228 289 321	4.9 3.8 3.2	J25	4114
	1,2-tetramethylenenaphthalene; 1,2,3,4-tetrahydrophenanthrene	cH	230 280 322	5.0 3.8 3.4	F49	4115
	2,3-tetramethylenenaphthalene; 1,2,3,4-tetrahydroanthracene	cH	230 276 386	4.9 3.7 3.7	F49	4116
	1,8-trimethylenenaphthalene; 2,3-dihydro-1H-phenalene	A	229 289	4.7 3.7	F49	4117
	1,3,5-trimethylnaphthalene	H	231 289 324	5.3 4.0 2.9	M51	4118
	1,3,8-trimethylnaphthalene	H	231.5 285 326	5.1 3.8 3.2	M51	4119
	1,6,7-trimethylnaphthalene	H	230 284	5.1 3.9	M51	4120
	1,4-dimethyl-5-(1-carboxyethyl)naphthalene	A	233 294	4.8 3.9	F49	4121
	1,6-dimethyl-4-isopropyl naphthalene	H	232 284 325	5.0 3.9 3.3	M51	4122
C ₄ -66	1,2,3,6,7,8-hexahydropyrene	Hp	234 296	5.0 3.9	F51g	4123
C ₆ -66	1,2,3,3a,4,4a,5,6,7,9,10,11-dodecahydro-dibenzo[cd,mn]pyrene	A	242 295 335	5.0 4.0 3.6	C59	4124

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
N-66	1,2,2a,3,4,4a,5,6,6a,7,8,8a,9,10-tetra-decahydrocoronene	Hp	241 297 330	5.0 4.0 3.4	F51g	4125
	1-naphthylamine	A	242 320	4.0 3.7	S65	4126
		*1	220 277	4.9 3.8	S65	4127
		*2	296	4.3	S65	4128
	2-naphthylamine	A	237 281 338	4.8 3.8 3.3	S65	4129
		*1	220 275	4.9 3.7	S65	4130
	complex of 1-naphthylamine with m-di-nitrobenzene		242 320 362	4.6 3.8 3.0	H92	4131
	complex of 2-naphthylamine with m-di-nitrobenzene		237 276.5 338	4.9 4.0 3.4	H92	4132
	1-(dimethylamino)naphthalene	A	305	3.7	S65	4133
		*1	220 280	4.9 3.8	S65	4134
	2-(dimethylamino)naphthalene	A	240 282 345	4.6 3.8 3.0	S65	4135
		*1	219 275	5.0 3.7	S65	4136
	1-acetamidonaphthalene	M	286		S2g	4137
	2-acetamidonaphthalene	M	240 280 312		S2g	4138
	2-benzamidonaphthalene	cH	226 ~298	4.6 4.1	S2g	4139
	1-(o-carboxybenzamido)naphthalene	M	222.5 290		S2g	4140

*1 0.01N HCl/W *2 0.01N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
NC ₂ -66	5-ethanethionamidoacenaphthene	M	228	4.2	S2n	4141
			275	3.5		
			300	3.5		
AsN-66	1-aminonaphthalene-2-arsonic acid	M	224 248 318		S2g	4142
O-66	1-naphthol	A	220 290	4.6 3.7	F49	4143
		*1	233 295.5 323	4.5 3.7 3.4	D1	4144
		10.0	245 331.5	4.3 3.8	D1	4145
	2-naphthol	A	228 275 330	4.8 3.7 3.3	F49	4146
		cH	226 273 328	4.8 3.7 3.4	F49	4147
		*1	226 274 330	4.9 3.7 3.3	D1	4148
	1-methoxynaphthalene	cH	231 293	4.6 3.8	F49	4149
	2-methoxynaphthalene	A	227 271-2 328	4.9 3.6 3.3	S30	4150
	1-acetoxynaphthalene	A	221 280 312	4.9 3.8 2.3	D1	4151
	2-acetoxynaphthalene	A	221 274 317	4.9 3.7 2.5	D1	4152
	1,2-dihydroxynaphthalene	*1	234 290 334	4.7 3.6 3.4	D1	4153
		10.0	235 345	4.2 3.2	D1	4154

*1 acid A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O ₃ -66	1,4-dihydroxynaphthalene	*1	244 334	4.2 3.7	D1	4155
		10.0	267	4.0	D1	4156
	1,5-dihydroxynaphthalene	*1	226 299	4.9 3.9	D1	4157
		10.0	225 330	4.6 4.0	D1	4158
	2,3-naphthalenediol	M	228.5 280.5 325.5		S2g	4159
	2,6-naphthalenediol	A	228 260 349	4.9 3.7 3.4	D1	4160
		*1	229 260 269.5 349	4.8 3.7 3.7 3.4	D1	4161
		10.0	230 350	4.6 3.4	D1	4162
	2,7-naphthalenediol	A	232 285.5 328	4.9 3.5 3.4	D1	4163
		*1	232 285.5 328	4.9 3.5 3.4	D1	4164
		10.0	239 282 340	4.7 3.6 3.5	D1	4165
O ₃ -66	1,2,4-naphthalenetriol	*1	245 315	4.6 3.7	D1	4166
		10.0	265 330 460	4.4 3.4 3.5	D1	4167
	1,4,5-naphthalenetriol	*1	222 333 347.5	4.7 3.9 3.9	D1	4168
		10.0	260 350	4.0 3.2	D1	4169

*1 acid A

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
O ₄ -66	2,3,6-naphthalenetriol	A	239	4.5	D1	4170
			282	3.4		
			331	3.3		
		*1	239	4.6	D1	4171
			282.5	3.4		
			331	3.3		
		10.0	243	4.5	D1	4172
			284	3.5		
			331	3.4		
	2-acetoxy-1,4-naphthalenediol	*1	244	4.5	D1	4173
			323.5	3.8		
5-acetoxy-1,4-naphthalenediol	*1	226	4.7	D1	4174	
		305	3.9			
		322	3.9			
1,2,4,5-naphthalenetetrol	*1	282	4.0	D1	4175	
		350.5	3.4			
		403	2.8			
1,3,4,5-naphthalenetetrol	*1	280	3.9	D1	4176	
		345	3.4			
		400	2.8			
OC-66	4-methyl-1-naphthol	C	303	3.8	E2	4177
	3-(hydroxymethyl)-2-naphthol	M	227.5		S2g	4178
			275.5			
			329			
OC ₂ -66	6-methoxyestra-1,3,5(10),6,8-pentaen-17-one	A	240	4.6	J13	4179
			303	3.8		
	1,2,3,4-tetrahydro-7-methoxy-2-methyl-1,2-phenanthrenedicarboxylic acid monomethyl ester	A	238	4.7	B1	4180
			277	3.8		
			331	3.3		
O ₂ C-66	2-methyl-1,4-naphthalenediol	*1	245	4.5	D1	4181
			265.5	3.4		
			324.5	3.7		
	2-acetoxy-4-methyl-1-naphthol	C	294	3.8	E2	4182
			328	3.4		
	1,2-diacetoxy-4-(acetoxymethyl)naphthalene	A	226	4.9	E2	4183
			283	3.9		

*1 acid A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O ₃ C-66	5,7-dimethoxy-2-methyl-1-naphthol		236	4.7	S23	4184
			288	3.8		
			298	3.8		
			333	3.5		
	5,7-dimethoxy-3-methyl-1-naphthol		233	4.8	S23	4185
			284	3.9		
			295	3.9		
			342	3.6		
	6,8-dimethoxy-3-methyl-2-naphthol	A	235	4.7	E2	4186
			302	3.7		
			335	3.6		
ON-66	5-amino-1-naphthol	A	228	4.7	G31g	4187
			308	3.9		
	8-amino-2-naphthol	M	247.5		S2g	4188
			303			
	5-acetamido-2-naphthol	M	~227		S2g	4189
			288.5 337			
S-66	2-naphthalenethiol	iO	225	4.6	F49	4190
			241	4.6		
			280	3.9		
			336	2.9		
	1-naphthalenesulfonic acid	*1	224	4.8	D1	4191
			283	3.8		
			315	2.6		
	2-naphthalenesulfonic acid	A	227	5.0	D1	4192
			274.5	3.7		
			320	2.6		
		*1	227	5.0	D1	4193
			275	3.7		
			320	2.6		
S ₂ -66	1,5-naphthalenedisulfonic acid	*1	227	4.8	D1	4194
			283	4.0		
			318	2.9		
	2,7-naphthalenedisulfonic acid	A	233	3.5	D1	4195
			266	3.6		
			315	2.4		
		*1	232.5	5.0	D1	4196
			266.5	3.6		
			315	2.4		

*1 acid A

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
		10.0	231 266.5 315	5.0 3.6 2.5	D1	4197
SN-66	4-amino-1-naphthalenesulfonic acid	*1	284	3.8	B80n	4198
		*2	317	3.8	B80n	4199
		*3	237 317 324	4.3 3.9 3.9	B80n	4200
	4-acetamido-1-naphthalenesulfonic acid	*4	227 297		S2g	4201
SO-66	1-hydroxy-2-naphthalenesulfonic acid	*5	237 294 328	4.6 3.6 3.6	D1	4202
	4-hydroxy-1-naphthalenesulfonic acid	*5	234 300	4.5 3.9	D1	4203
	5-hydroxy-1-naphthalenesulfonic acid	*5	241 311.5	4.5 3.7	D1	4204
	1-hydroxy-6-naphthalenesulfonic acid	*5	245 304 334	4.6 3.5 3.5	D1	4205
	2-hydroxy-1-naphthalenesulfonic acid	*5	229 278 330	4.8 3.7 3.4	D1	4206
	2-hydroxy-6-naphthalenesulfonic acid	*5	233 280 332	4.9 3.7 3.1	D1	4207
SO ₂ -66	2,3-dihydroxy-6-naphthalenesulfonic acid	M	238.5 281 330		S2g	4208
S ₂ O-66	2-hydroxy-3,6-naphthalenedisulfonic acid	*5	237 273 342	4.9 3.6 3.2	D1	4209
	2-hydroxy-6,8-naphthalenedisulfonic acid	*5	237 287 338	4.8 3.8 3.5	D1	4210
S ₂ ON-66	1-amino-8-hydroxy-2,4-naphthalenedi-sulfonic acid	W	237 340		S2g	4211

*1 0.98M HCl/W *2 0.001M HCl/W *3 0.0001M NaOH + 0.5M NaCl/W *4 Na salt in M
 *5 acid A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
F-66	1-fluoronaphthalene	PE	279	3.8	F14	4212
	2-fluoronaphthalene	PE	270	3.8	F14	4213
Cl-66	1-chloronaphthalene	PE	283	3.8	F14	4214
	2-chloronaphthalene	PE	276	3.8	F14	4215
Br-66	1-bromonaphthalene	PE	285	3.9	F14	4216
	2-bromonaphthalene	M	277		S2g	4217
I-66	1-iodonaphthalene	PE	287	4.0	F14	4218
	2-iodonaphthalene	PE	279	3.9	F14	4219
66-66	1,1'-binaphthyl	A	228	4.6	F50	4220
			282	4.1		
			294	4.1		
	1,2'-binaphthyl	A	219	4.8	F50	4221
			226	4.8		
			292	4.2		
	2,2'-binaphthyl	A	212	4.7	F50	4222
			254	5.0		
			305	3.3		
C-66-66	2,2'-binaphthyl-1-ylacetic acid	A	250	4.8	F49	4223
C-66-66-C	dibenzo[a,g]fluorene	A	255	4.8	F11	4224
			285	4.1		
			349	4.3		
C ₂ -66-66-C ₂	2,2',7,7'-tetramethyl-1,1'-binaphthyl	A	228	5.1	F50	4225
			284	4.0		
			319	3.1		
N-66-66-N	2,2'-diamino-1,1'-binaphthyl	A	241	5.0	J25	4226
			282	4.1		
			346	3.8		
		*1	285	4.1	J25	4227
O-66-66	1'-hydroxy-1,2'-binaphthyl	A	218	5.1	O5	4228
			280-90	4.0		
O ₂ -66-66-O ₂	2,2',7,7'-tetrahydroxy-1,1'-binaphthyl	A	232	5.0	B112	4229
			303	4.0		
	3,3',4,4'-tetraacetoxy-1,1'-binaphthyl	A	288	4.1	B112	4230

*1 1N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
66-C:C	2-vinylnaphthalene	C	247 284	4.7 4.2	L0n	4231
66-C:C-C	1-propenylnaphthalene	H	293	4.0	P7g	4232
	1-(3-hydroxy-1-butenyl)naphthalene	A	228 296	4.7 4.0	B117	4233
	2-(3-hydroxy-1-butenyl)naphthalene	A	246 284	4.7 4.2	B117	4234
66-C:C C	2-isopropenylnaphthalene	A	238 283 296	4.7 4.1 4.1	F49	4235
66-C:C-C C	1-(1-cyclopentenyl)naphthalene	A	225 295	4.7 3.9	B1g	4236
	1-(1-cyclohexenyl)naphthalene	A	225 281	4.5 3.9	F49	4237
C-66-C:C-C	phenalene; perinaphthindene		234 320 348	4.4 3.9 3.7	B81	4238
OC-66-C:C-C C	6-methoxyestra-1,3,5(10),6,8,14-hexaen-17-one	A	259.5 302 330	4.7 3.9 3.6	J13	4239
C-66-C:C-66-C C C	7,14-dihydrodibenzo[de,mn]naphthacene	A	270 303 400	4.7 4.9 4.5	C36	4240
66-C:C-C:C-66	1,4-di(1-naphthyl)-1,3-butadiene	D	240 292 362	4.4 3.7 4.3	H67	4241
	1-(1-naphthyl)-4-(2-naphthyl)-1,3-butadiene	D	238 276 364	4.6 4.4 4.6	H67	4242
	1,4-(di-2-naphthyl)-1,3-butadiene	D	240 282 356	4.5 4.6 4.9	H67	4243
66-N:N-66	1,1'-azonaphthalene	A	214 266 400	4.9 4.3 4.2	B30	4244
	1,2'-azonaphthalene	A	216 264 381	4.8 4.3 4.2	B30	4245


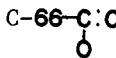
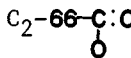
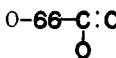
system	compound	solv.	λ_{\max} .	loge	ref.	no.
66-N:N-66 	2,2'-azonaphthalene	A	214 262 335	4.6 4.3 4.4	B30	4246
	1,1'-azoxynaphthalene	A	218 262 364	4.9 4.1 4.1	B30	4247
	1,2'-azoxynaphthalene	A	216 262 386	4.8 4.3 4.2	B30	4248
	2,2'-azoxynaphthalene	A	216 263 346	4.7 4.4 4.4	B30	4249
66-C:N-N 	2-acetylnaphthalene semicarbazone	*1	235 260 295	4.4 4.4 4.4	R2	4250
	2-acetylnaphthalene 2-methylsemi- carbazone	*1	245 285	4.6 4.0	R2	4251
C₂-66-C:N-O 	1,2,3,3a,4,5-hexahdropyren-5-one oxime	cH	240 310	4.7 3.9	F49	4252
C-N:C-66-66-C:N-C 	1,1',6,6',7,7'-hexahydro-5,5'-diiso- propyl-3,3'-dimethyl-2,2'-binaphthyl- 8,8'-dicarboxaldehyde bis(dodecylimine)	C	255 385-92	4.9 4.4	S43n	4253
66-C:N-N:C-66	bis(1-naphthylmethylene)hydrazine	A	354	4.5	B77	4254
	bis(2-naphthylmethylene)hydrazine	A	330	4.8	B28	4255
66-C:N-N:C-66 	bis[1-(1-naphthyl)ethylidene]hydrazine	A	293	4.3	B75	4256
	bis[1-(2-naphthyl)ethylidene]hydrazine	D	262 305	4.7 4.5	B75	4257
O- 66-C:N-N:C-66-O	bis[(2-hydroxy-1-naphthyl)methylene]- hydrazine	A	232 267 330 409	4.8 4.4 4.2 4.5	B77	4258
	bis[(4-hydroxy-1-naphthyl)methylene]- hydrazine	A	245 385	4.3 4.3	B77	4259
C ₂ - 66-C:O	5-acenaphthenecarboxaldehyde	Hp	253 331	4.5 4.0	J25	4260
O- 66-C:O	1-hydroxy-2-naphthaldehyde	H	381	3.7	M29	4261

*1 50% A

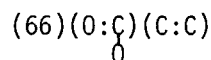
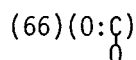
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-hydroxy-1-naphthaldehyde	*1	405	4.0	M29	4262
		H	370	3.7	M29	4263
	3-hydroxy-2-naphthaldehyde	*1	395	3.9	M29	4264
		H	390	3.3	M29	4265
66 - $\text{C}:\text{O}$ C	2-acetylnaphthalene	*1	442	3.7	M29	4266
		cH	246	4.8	F49	4267
			280 340	4.0 3.2		
	1,2,3,4-tetrahydro-4-phenanthrenone	A	311	3.9	W25	4268
C- 66 - $\text{C}:\text{O}$ C	1,2,3,4-tetrahydro-1-phenanthrenone	A	251	4.7	W25	4269
			284	4.0		
			342	3.4		
C₂-66 - $\text{C}:\text{O}$ C	3-acetylacenaphthene	A	214	4.3	J25	4270
			253	4.8		
			293	3.8		
			352	3.7		
	5-acetylacenaphthene	A	212	4.5	J25	4271
			245	4.4		
			330	4.0		
	1,2,3,3a,4,5-hexahydro-5-pyrenone	cH	222	4.1	F49	4272
			247	3.9		
			318	3.3		
N- 66 - $\text{C}:\text{O}$ C	1-(2-cyanoethyl)-1,2,3,4-tetrahydro-1-aza-4-phenanthrenone	A	217	4.4	B123	4273
			258	4.6		
			320	3.8		
			400	3.8		
O- 66 - $\text{C}:\text{O}$ C	2-acetyl-1-naphthol	A	256	4.4	B61	4274
			284	3.7		
			366	3.7		
		D	260	4.5	C103n	4275
			287			
			365	3.7		
		10	256	4.6	B61	4276
			284	3.8		
			366	3.8		
	1-acetyl-2-naphthol	A	227	4.7	B61	4277
			299 337	3.6 3.6		

*1 0.1N NaOH/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
		iO	225 312 358	4.6 3.9 3.7	B61	4278
	2-acetyl-3-naphthol	A	250 304 390	4.6 3.8 3.2	B61	4279
		iO	250 302 386	4.5 3.9 3.2	B61	4280
$O_3-\text{66}-\underset{\text{C}}{\text{C}}:\text{O}$	3,4-diacetoxy-2-acetyl-1-naphthol	D	260 375	4.5 3.7	C103n	4281
$OC_2-\text{66}-\underset{\text{C}}{\text{C}}:\text{O}$	1,2,3,3a,4,5-hexahydro-6-hydroxy-3-methyl-5-oxo-3-acephenanthrylene-carboxylic acid	A	265 300 381	4.7 2.8 3.7	T16x	4282
	methyl 1,2,3,3a,4,5-hexahydro-6-methoxy-3-methyl-5-oxo-3-acephenanthrylene-carboxylate	A	221 299 372	4.4 3.8 3.6	T16x	4283
$O_3C-\text{66}-\underset{\text{C}}{\text{C}}:\text{O}$	1-acetyl-3-methyl-2,6,8-naphthalenetriol	A	235 273 392	4.3 4.4 4.0	E2	4284
	1-acetyl-6,8-dimethoxy-3-methyl-2-naphthol	A	234 259 341	4.5 4.3 3.8	E2	4285
$\text{66}-\underset{\text{C}}{\text{C}}:\text{C}-\underset{\text{C}}{\text{C}}:\text{O}$	1-(3-oxo-1-butenyl)naphthalene	A	224 250 330	4.5 4.2 4.1	B117	4286
	2-(3-oxo-1-butenyl)naphthalene	A	237 245 272 310	4.2 4.2 4.5 4.4	B117	4287
$C-\text{66}-\underset{\text{C}}{\text{C}}:\text{C}-\underset{\text{C}}{\text{C}}:\text{O}$	gona-1,3,5(10),6,8,14-hexaen-16-one	A	218 276 306	4.8 4.6 4.5	W25	4288
	estra-1,3,5(10),6,8,14-hexaen-16-one	A	219 275.5 315	4.4 4.6 4.4	W25	4289
	1,2,3,11,12,12a-hexahydro-3-chrysenone	A	222 280 315	4.4 4.5 4.5	W25	4290
$C-\text{66}-\underset{\text{C}}{\text{C}}:\text{C}-\underset{\text{C}}{\text{C}}:\text{O}$	gona-1,3,5(10),6,8,13-hexaen-17-one	A	219 280 334	4.6 4.7 4.2	W25	4291

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	1,9a-dihydro-9a-hydroxy-1,3-dipropyl-1H-pentaleno[1,2,3-de]naphthalen-2-one		228 262 341	4.4 4.0 4.0	A17	4292
(66)(O:C)(C:C) ₂ -C ₃	3,11,12,12a-tetrahydro-12-methyl-3-chrysenone	A	233 283 322	4.6 4.4 4.3	W25	4293
	2,4a,5,6-tetrahydro-4a-methylbenzo[c]-phenanthren-2-one	A	228 244-53 346	4.7 4.1 4.0	D25	4294
(66)(O:C) ₂ (C:C)-C ₃	estra-1,3,5(10),6,8,14-hexaen-16,17-dione	A	236 280 350	4.4 4.3 4.2	W25	4295
	1-naphthoic acid	A	294	3.9	H67g	4296
	2-naphthoic acid	A	233 279.5 333	4.7 3.8 3.1	H67g	4297
	1,3-dihydro-1-methyl-1-phenylbenzo[de]-isochromen-3-one		241 314 328		N10	4298
	acenaphthene-3-carboxylic acid	A	242 288 342	4.8 3.8 3.6	J25	4299
		*1	236 287 336	4.7 3.8 3.5	J25	4300
	2-hydroxy-1-naphthoic acid	M	234.5 284		S2g	4301
	3-hydroxy-2-naphthoic acid	A	232 266 328	4.8 3.8 3.5	B61	4302
		D	239 286 368	4.7 3.9 3.4	B61	4303
	3-methoxy-2-naphthoic acid	A	232 266 328	4.8 3.8 3.3	B61	4304
		D	235 270 341	4.8 3.8 3.3	B61	4305

*1 0.1N NaOH/50% A



system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	methyl 3-hydroxy-2-naphthoate	A	238 286 364	4.8 3.9 4.0	B61	4306
		D	240 286 366	4.8 3.9 3.4	B61	4307
	methyl 3-methoxy-2-naphthoate	A	234 271 340	4.7 3.7 3.2	B161	4308
		D	234 269 338	4.8 3.7 3.2	B161	4309
$O:\overset{\underset{O}{\parallel}}{C}-66-\overset{\underset{O}{\parallel}}{C}:O$	ethyl 1,8-naphthalenedicarboxylate	A	225 296		N10	4310
	1,2-naphthalenedicarboxylic anhydride	A	256 310-22	4.7 3.6	H67g	4311
	2,3-naphthalenedicarboxylic anhydride	A	257 281 293 350	4.8 3.7 3.7 3.8	H67g	4312
	1,8-naphthalenedicarboxylic anhydride	A	232 328 338	4.5 4.2 4.2	H67g	4313
$O:\overset{\underset{O}{\parallel}}{C}-66-66-\overset{\underset{O}{\parallel}}{C}:O$	1,1'-binaphthyl-5,5'-dicarboxylic acid		222 260 302	4.9 3.7 4.2	H3	4314
	1,1'-binaphthyl-8,8'-dicarboxylic acid	A	219.5 267.5 309	4.8 3.7 4.1	H3	4315
$66-C:C-\overset{\underset{O}{\parallel}}{C}:O$	methyl 3-(1-naphthyl)acrylate	A	268.5 303.5	4.5 4.4	J13	4316
$C-\overset{\underset{O}{\parallel}}{C}-66-C:C-C$	3,4-dihydro-1-phenanthrenecarboxylic acid	A	256 307	4.5 3.7	B1g	4317
$C_2-66-C:C-\overset{\underset{O}{\parallel}}{C}:O$	3-(5-acenaphthenyl)acrylic acid	A	232 344	4.5 4.2	J25	4318
		*1	233 330	4.6 4.2	J25	4319


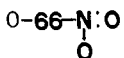

*1 0.2N NaOH/50% A

(66)(O:C)(C:C)

(66)(O:N)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
OC- 66 - $\begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \quad \\ \text{C} \quad \text{C} \quad \text{O} \end{array}$	methyl 6-methoxy-17-oxoestra-1,3,5(10),6,8,14-hexaene-15-carboxylate	A	223.5 268.5 354	4.4 4.4 3.8	J13	4320
66 - $\begin{array}{c} \text{C} \text{---} \text{C} \text{---} \text{C} \text{---} \text{O} \\ \quad \quad \\ \text{S} \quad \text{O} \end{array}$	2-mercapto-3-(1-naphthyl)acrylic acid	A	275 327	3.7 4.0	C4	4321
	2-mercapto-3-(2-naphthyl)acrylic acid	A	225 273 327	4.5 4.2 4.3	C4	4322
		*1	230 278 344	4.6 4.1 4.2	C4	4323
	2-ethylthio-3-(2-naphthyl)acrylic acid	*1	260 313	4.3 4.1	C4	4324
	2,2'-dithiobis[3-(2-naphthyl)acrylic acid]	A	220 314	4.7 4.5	C4	4325
		*1	262 310	4.6 4.3	C4	4326
66 -N:O	1-nitrosonaphthalene	A	258 372.5	4.9 4.2	F47	4327
		cH	257 359	3.9 3.6	F47	4328
		E	256 372.5	4.6 4.0	F47	4329
O- 66 -N:O	2-nitroso-1-naphthol [1,2-naphthoquinone 2-oxime enol]	A	263 379	4.4 4.0	F47	4330
		cH	260 421	4.1 2.9	F47	4331
		E	260 373	4.2 3.6	F47	4332
		M	259 345	4.3 3.6	S2g	4333
	4-nitroso-1-naphthol [1,4-naphthoquinone 1-oxime enol]	A	277 345	4.2 3.9	F47	4334
		C	275 336	4.2 3.9	F47	4335
		E	268 343	4.3 3.9	F47	4336

*1 0.5N Na₂CO₃/W

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	1-nitroso-2-naphthol [1,2-naphthoquinone 1-oxime enol]	A	263 371	4.1 3.6	F47	4337
		cH	270 376	3.6 3.3	F47	4338
		E	265 370	4.3 4.0	F47	4339
	1-methoxy-2-nitrosonaphthalene	A	255 349	4.9 4.3	F47	4340
		cH	256 376	5.2 5.0	F47	4341
		E	254 383	5.2 5.1	F47	4342
	2-methoxy-1-nitrosonaphthalene	A	257 347.5	4.7 4.0	F47	4343
		cH	253 342	5.0 4.1	F47	4344
		E	256 340	4.9 4.8	F47	4345
	1-nitronaphthalene	A	333	3.6	S30	4346
	4-nitro-1-naphthol	*1	260 385	3.9 3.9	S29	4347
		*2	234 288 457	4.1 3.9 3.9	S29	4348
	5-nitro-1-naphthol	*1	264 ~329	4.0 3.3	S29	4349
		*2	238 290 470	4.1 4.0 3.5	S29	4350
	6-nitro-1-naphthol	*1	278 ~385	4.4 3.6	S29	4351
		*2	303 462	4.2 3.4	S29	4352
	1-phenylnaphthalene	A	226 288	4.8 4.0	F50	4353

*1 0.09N HCl/48% A *2 0.09N NaOH/48% A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		cH	228 288	4.8 4.0	F50	4354
	2-phenylnaphthalene	A	212 250 285	4.6 4.7 4.0	F50	4355
		cH	212 250 286	4.5 4.7 4.0	F50	4356
66-6-C	1-(o-tolyl)naphthalene	cH	225 280 314	4.8 4.0 2.8	F50	4357
	2-(o-tolyl)naphthalene	cH	238 274	4.7 3.9	F50	4358
C-66-6-C	11H-benzo[a]fluorene	A	263 296 345	4.9 4.2 3.1	C65	4359
	11H-benzo[b]fluorene	A	263 317 340	4.8 4.3 3.9	C65	4360
	7H-benzo[c]fluorene	A	231 313 335	4.7 4.2 4.2	C65	4361
	7H-benzo[de]anthracene	A	228 330	4.7 4.2	C36	4362
C-66-6-C₂	10-methyl-7H-benzo[c]fluorene	A	236 312 338	4.7 4.2 4.3	B1g	4363
66-6-O	1-(o-hydroxyphenyl)naphthalene	cH	223 283	4.8 4.0	F50	4364
	2-(o-hydroxyphenyl)naphthalene	cH	225 280	4.7 4.0	F50	4365
	1-(o-methoxyphenyl)naphthalene	cH	224 282	4.8 4.0	F50	4366
O₂-66-6-O₂	2,3-dimethoxy-6-(3,4-dimethoxyphenyl)-naphthalene	A	266 303	4.4 4.3	B20	4367
O₂N-66-6-O₂C	5,6-dihydro-2,3,7,8-tetramethoxy-5-methylbenzo[c]phenanthridine	A	277	4.6	B20	4368
6-66-6	1,6-diphenylnaphthalene	A	259	4.7	H67g	4369

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
66-66-6 -C	2-(1-naphthyl)-1-(o-tolyl)naphthalene	A	224 284	5.0 4.3	F49	4370
C-66-C:C-6 C	3,4-dihydro-2-phenylphenanthrene	cH	223 276 286 343	4.4 4.6 4.6 4.3	F49	4371
66-C:C-C:C-6	1-(4-phenyl-1,3-butadienyl)naphthalene	A	292 338	4.7 4.7	H67	4372
	2-(4-phenyl-1,3-butadienyl)naphthalene	A	242 292 340	4.4 4.5 4.8	H67	4373
66-C:C:C-6 -Br	1-(p-bromophenyl)-3-(1-naphthyl)allene		298	4.0	C23	4374
	1-(p-bromophenyl)-3-(2-naphthyl)allene		237 261 297	4.6 4.8 4.4	J3	4375
66-N:N-6	1-phenylazonaphthalene	A	219 266 273 372	4.6 4.0 4.0 4.1	B7	4376
		H	269 370 463	4.1 4.1 3.1	B154	4377
	2-phenylazonaphthalene	A	219 265 277 287 328	4.5 4.1 4.1 4.1 4.3	B7	4378
N-66-N:N-6	1-phenylazo-4-naphthylamine	A	440	4.3	B132	4379
		B	426	4.3	B132	4380
		C	422	4.3	B132	4381
		EA	429	4.4	B132	4382
		iO	416	4.3	B132	4383
		M	249.5 279 352 435	4.2 4.1 3.5 4.4	T17	4384
	2-phenylazo-1-naphthylamine	M	232 309 315.5 377 468	4.4 4.4 4.4 3.4 4.2	T17	4385

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
N-66-N:N-6-C	1-(p-tolylazo)-2-naphthylamine	M	246	4.5	T17	4386
			278	4.2		
			346	3.9		
			446	4.2		
	1-(p-tolylazo)-4-naphthylamine	M	249	4.2	T17	4387
			278	4.2		
			440	4.4		
	2-(p-tolylazo)-1-naphthylamine	M	235.5	4.4	T17	4388
			273	3.9		
			315	4.4		
			468	4.2		
O-66-N:N-6	1-phenylazo-2-naphthol	A	475	4.1	B159g	4389
	1-phenylazo-4-naphthol	A	420	4.5	F17u	4390
			450	4.2		
		B	410	4.1	B132	4391
			450	4.1		
		C	464	4.3	B132	4392
		EA	406	4.1	B132	4393
		iO	383	4.2	B132	4394
			395	4.2		
		*1	490	5.0	F17u	4395
	2-phenylazo-1-naphthol	A	293	4.2	F17u	4396
			355	4.1		
			490	4.3		
		*1	328	4.1	F17u	4397
			490	4.3		
	2-phenylazo-3-naphthol	A	223	4.5	F17u	4398
			281	4.2		
			356	4.5		
			438	3.5		
		*1	490	3.5	F17u	4399
	1-methoxy-4-cis-phenylazonaphthalene	PE	262.5	4.1	C83	4400
			278.5	4.0		
			389.5	4.2		
	1-methoxy-4-trans-phenylazonaphthalene	PE	268	4.3	C83	4401
			392	4.3		

*1 NaOH/A

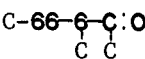
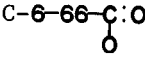
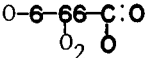
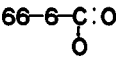
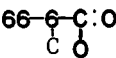
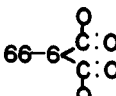
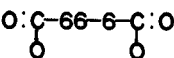
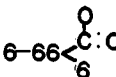
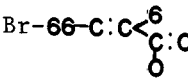
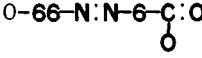
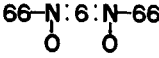
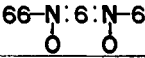
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
O- 66 -N:N-6-O	1-(o-hydroxyphenylazo)-2-naphthol	A	495	4.3	B132	4402
		B	480	4.2	B132	4403
		C	478	4.2	B132	4404
		EA	486	4.2	B132	4405
		iO	476	4.2	B132	4406
N- 66 -N:N-6-O	1-(p-methoxyphenylazo)-4-naphthylamine	M	250	4.2	T17	4407
			265	4.2		
			357	3.7		
			435	4.4		
	2-(p-methoxyphenylazo)-2-naphthylamine	M	223.5 279 327.5 389 469	4.5 3.8 4.3 3.8 4.2	T17	4408
O- 66 -N:N-6-S	1-(p-sulfophenylazo)-2-naphthol; Orange II	7.0	487	4.3	M61n	4409
	1-(p-sulfophenylazo)-4-naphthol; Orange I	7.0	470	4.5	M61n	4410
S ₂ O- 66 -N:N-6-OC	2-hydroxy-1-(2,4-xylylazo)-3,6-naphthalenedisulfonic acid; Ponceau 2R	W	498.5 538		F38u	4411
N- 66 -N:N-6-Cl	1-(p-chlorophenylazo)-4-naphthylamine	M	249.5	4.2	T17	4412
			283	4.3		
			338	3.5		
			458	4.4		
	2-(p-chlorophenylazo)-1-naphthylamine	M	235 319 379 480	4.4 4.4 3.6 4.2	T17	4413
(66) ₂ (6) ₂ (N:N) ₂ -S ₂ N ₂	4,4'-bis(1-amino-4-sulfo-2-naphthylazo)-biphenyl; Congo Red	W	497		F38u	4414
66 -N:N-6 O	(1-naphthylazoxy)benzene	A	220 269 378	4.5 4.1 4.1	B30	4415
	(2-naphthylazoxy)benzene	A	216 276 340	4.5 4.3 4.3	B30	4416
66 -N:N-6 O	2-(phenylazoxy)naphthalene	A	214 259 331	4.6 4.2 4.3	B30	4417

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\begin{array}{c} 66-\text{C}:\text{N}-\text{N}:\text{C}-6 \\ \text{C} \quad \text{C} \end{array}$	1-(α -methylbenzylidene)-2-[1-(2-naphthyl)ethylidene]hydrazine	Ac	268	4.9	B75	4418
$\begin{array}{c} 66-\text{N}:\text{C} < \begin{array}{c} 6-\text{N} \\ 6-\text{N} \end{array} \end{array}$	1-[bis(p-dimethylaminophenyl)methylene-imino]naphthalene	A	334	4.7	B125	4419
		*1	445	4.7	B125	4420
		*2	455	4.7	B125	4421
	2-[bis(p-dimethylaminophenyl)methylene-imino]naphthalene	A	345	4.8	B125	4422
		*1	450	4.8	B125	4423
		*2	345 445	4.5 4.5	B125	4424
$(66)_2(6)_2(\text{N}:\text{C})_2-\text{O}_6\text{C}_4$	1,1',6,6',7,7'-hexahydroxy-5,5'-diisopropyl-3,3'-dimethyl-8,8'-bis(phenyliminomethyl)-2,2'-binaphthyl	C	253 431	4.8 4.5	S43n	4425
$\begin{array}{c} 66 \\ 6 \end{array} > \text{C}:\text{O}$	2-benzoylnaphthalene	A	219 253 286 337	4.6 4.6 4.1 3.4	F49	4426
		cH	219 251 284 330	4.7 4.6 4.0 3.2	F49	4427
$\begin{array}{c} \text{C}-66 \\ \text{C}-6 \end{array} > \text{C}:\text{O}$	7,12-dihydrobenz[e]anthracen-7-one	H	267 351	4.7 3.4	F24	4428
$\begin{array}{c} \text{N}-66 \\ 6 \end{array} > \text{C}:\text{O}$	1-benzoyl-2-naphthylamine	cH	238 387	4.7 3.6	F49	4429
	2-benzamido-1-benzoylnaphthalene	cH	227 343-65	4.6 3.6	F49	4430
$\begin{array}{c} 66 \\ \text{Cl}-6 \end{array} > \text{C}:\text{O}$	1-(m-chlorobenzoyl)naphthalene	cH	221 249 280-300	5.0 4.3 3.9	F49	4431
	1-(p-chlorobenzoyl)naphthalene	cH	222 257 309	4.9 4.4 3.8	F49	4432
	2-(m-chlorobenzoyl)naphthalene	cH	221 252 286 333	5.0 4.6 4.2 3.3	F49	4433

*1 HCl salt in A *2 picrate in A

(66)(6)(0:C)

(66)(N:6:N)(6)
0 0

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	1,2,3,12c-tetrahydrobenzo[1]fluoranthene-3-one	A	272 325	4.6 3.8	F49	4434
(66)(6) ₃ (0:C)-C ₂	5,12-dihydro-6,11,12-triphenyl-5-naphthacenone; 1,4,10-triphenyl-benz[b]anthrone		318	4.5	B12	4435
	1-(m-tolyl)-2-naphthoic acid	A	232.5 284	4.6 3.8	H3	4436
	4-hydroxy-6-methoxy-1-(p-methoxyphenyl)-2-naphthoic acid	A	247 306	4.5 3.8	K36	4437
	tert-butyl 4-hydroxy-6-methoxy-1-(p-methoxyphenyl)-2-naphthoate	A	222 242 283	4.4 4.5 4.0	K36	4438
	tert-butyl 4-acetoxy-6-methoxy-1-(p-methoxyphenyl)-2-naphthoate	A	246 301	4.6 3.9	K36	4439
	o-(1-naphthyl)benzoic acid	A	222.5 283.5	4.8 4.0	H3	4440
	m-(1-naphthyl)benzoic acid	A	223 289	4.9 4.0	H3	4441
	2-(1-naphthyl)-p-toluic acid	A	223 284	4.7 4.1	B1g	4442
	(1-naphthyl) terephthalic acid	A	283	4.0	B1g	4443
	8-(o-carboxyphenyl)-1-naphthoic acid	A	226 299	4.6 4.0	H3	4444
	4,7-diphenyl-1-naphthoic acid	A	244 375	4.8 3.5	H67g	4445
	3-(1-bromo-2-naphthyl)-2-phenylacrylic acid	A	228 279	4.8 4.4	F49	4446
	p-(2-hydroxy-1-naphthylazo)benzoic acid	*1	490		M14	4447
	N,N'-di(2-naphthyl)-p-benzoquinone diimine N,N'-dioxide	C	435	4.5	P7	4448
	N-(2-naphthyl)-N'-phenyl-p-benzoquinone diimine N,N'-dioxide	C	432	4.7	P7	4449

*1 Na salt in W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.	
N:66:N	1,2-naphthoquinone oxime	A	262 355	4.3 4.0	F46	4450	
		E	265 357.5	4.3 3.9	F46	4451	
O:66:O	1,2-naphthoquinone	A	251 343 402	4.4 3.4 3.3	E2	4452	
		C	340 403 520	3.5 3.8 1.8	T4	4453	
		D	250 335 385 480	4.4 3.4 3.4 1.7	T4	4454	
	1,4-naphthoquinone	A	246 251 338	4.3 4.3 3.5	D1	4455	
		D	245 330	4.3 3.4	T4	4456	
		H	246 330	4.4 3.4	M52	4457	
	10.0	267 340	4.0 3.1	D1	4458		
	O:66:O C	3-methyl-1,2-naphthoquinone	A	254 338 419	4.5 3.4 3.3	E2	4459
		4-methyl-1,2-naphthoquinone	A	253 343 403	4.4 3.4 3.3	E2	4460
		2-methyl-1,4-naphthoquinone	A	251 332	4.3 3.4	T3g	4461
D			251 329	4.3 3.4	F49	4462	
H		250 263 334	4.3 4.3 3.4	M52	4463		
*1		251	4.3	D1	4464		

*1 acid/A

(0:66:0)

(0:66:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:66:O C ₂	2,3-dimethyl-1,4-naphthoquinone	A	249 330	4.3 3.4	F22	4465
		H	260 269 330	4.3 4.3 3.4	M52	4466
O:66:O C ₃	3-allyl-2,6-dimethyl-1,4-naphthoquinone	A	256 335	4.4 3.4	F22	4467
O:66:O C ₄	2,3-diallyl-6,7-dimethyl-1,4-naphthoquinone	A	253 260 338	4.4 4.4 3.5	F22	4468
O:66:O N	2-amino-1,4-naphthoquinone	A	262 333 450	4.3 3.4 3.5	B31n	4469
O:66:O O	5-hydroxy-1,2-naphthoquinone	D	250 430	4.3 3.7	T4	4470
	6-hydroxy-1,2-naphthoquinone	D	280 370	4.2 3.8	T4	4471
	7-hydroxy-1,2-naphthoquinone	C	265 335 455	4.5 3.1 3.4	T4	4472
	2-hydroxy-1,4-naphthoquinone; 4-hydroxy-1,2-naphthoquinone; lawsone	H	244 276 331 ~395 460	4.2 4.2 3.5 3.3 2.6	M52	4473
		*1	249 278 333	4.3 4.2 3.5	D1	4474
		*2	455	3.5	E18	4475
	5-hydroxy-1,4-naphthoquinone; juglone	D	250 325 415	4.2 3.1 3.6	T4	4476
		H	249 339 425 ~495	4.1 3.2 3.6 2.8	M52	4477
	6-hydroxy-1,4-naphthoquinone	C	270 390	4.4 3.6	T4	4478

*1 acid/A *2 0.1N NaOH/W

(0:66:0)

(0:66:0)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
O:66:O O ₂	3-methoxy-1,2-naphthoquinone	C	345 470	3.3 3.2	T4	4479
	4-methoxy-1,2-naphthoquinone	C	250 335 400	4.4 3.3 3.4	T4	4480
	5-methoxy-1,4-naphthoquinone; juglone methyl ether	A	245 350 395	4.2 3.4 3.5	S26	4481
	2-acetoxy-1,4-naphthoquinone; lawsone acetate	*1	250 336	4.3 3.5	D1	4482
	5-acetoxy-1,4-naphthoquinone; juglone acetate		245 338	4.2 3.4	M3	4483
	2,3-dihydroxy-1,4-naphthoquinone; isonaphthazarin	H	270 335 440	4.1 3.3 3.3	M52	4484
	2,5-dihydroxy-1,4-naphthoquinone; hydroxyjuglone	H	286 405	4.1 3.7	M3	4485
	5,8-dihydroxy-1,4-naphthoquinone; naphthazarin	H	270 513	3.9 3.9	M3	4486
	2,3-diacetoxy-1,4-naphthoquinone; isonaphthazarin diacetate		246 268 338	4.2 4.2 3.4	M3	4487
	2,5-diacetoxy-1,4-naphthoquinone; hydroxyjuglone diacetate		250 346	4.1 3.5	L30	4488
	5,8-diacetoxy-1,4-naphthoquinone; naphthazarin diacetate		244 352	4.2 3.4	M3	4489
	2,5,8-trihydroxy-1,4-naphthoquinone; naphthapurpurin		253 486	4.3 3.9	L30	4490
	2,5,8-triacetoxy-1,4-naphthoquinone		254 355	4.1 3.5	L30	4491
	2-hydroxy-3-methyl-1,4-naphthoquinone; phthiocol		250 331	4.3 3.4	C86	4492

O:66:O
O₃O:66:O
OC2,3-dihydro-2-isopropenyl-naphtho[1,2-a]-
furan-4,5-quinone; dehydroiso- β -
lapachone3,4-dihydro-2,2-dimethyl-2H-benzo[h]-
chromene-5,6-quinone; β -lapachone262
333.5
442.5256.5
330
429.54.5
3.2
3.34.5
3.2
3.3

C86

C86

4493

4494


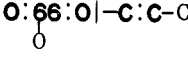
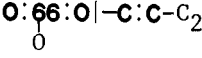
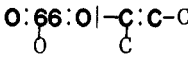
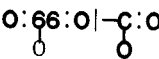
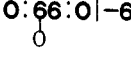
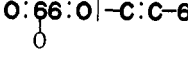
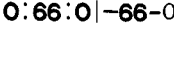
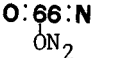

*1 acid/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:66:O O ₂ C	2-methoxy-3-(3-methyl-2-butenyl)-1,4-naphthoquinone; lapachol methyl ether		249.5 333	4.4 3.6	C86	4495
	2-acetoxy-3-methyl-1,4-naphthoquinone; phthiochol acetate		248 333	4.2 3.4	C86	4496
	2,5-dihydroxy-3-methyl-1,4-naphthoquinone; droserone		288 410	4.1 3.7	L30	4497
	5,8-dihydroxy-2-methyl-1,4-naphthoquinone; 2-methylnaphthazarin		275 510	4.0 3.8	M3	4498
	6,8-dimethoxy-3-methyl-1,2-naphthoquinone	A	265 411	3.2 3.0	E2	4499
	5,7-dimethoxy-2-methyl-1,4-naphthoquinone		264 407	4.3 3.6	S23	4500
	6,8-dimethoxy-2-methyl-1,4-naphthoquinone		267 408	4.3 3.6	S23	4501
	2,5-diacetoxy-3-methyl-1,4-naphthoquinone; droserone diacetate		267.5 344	4.0 3.5	L30	4502
O:66:O O ₃ C	5,8-diacetoxy-2-methyl-1,4-naphthoquinone		352	3.4	M3	4503
	2,5,8-trihydroxy-3-methyl-1,4-naphthoquinone; hydroxydroserone		298 488 518	3.9 3.8 3.7	M3	4504
	3-hydroxy-5,7-dimethoxy-2-methyl-1,4-naphthoquinone	A	266 301 368	4.2 4.2 3.6	E2	4505
		*1	226 282 369 492	4.3 4.3 3.8 4.3	E2	4506
	2-hydroxy-5,7-dimethoxy-3-methyl-1,4-naphthoquinone	A	261 303 367	4.3 3.0 2.6	E2	4507
	3,5,8-triacetoxy-2-methyl-1,4-naphthoquinone; hydroxydroserone triacetate		351	3.4	M3	4508
	2-ethyl-3,5,6,7,8-pentahydroxy-1,4-naphthoquinone	B	461 494 532		K73	4509

*1 1cc 0.1N NaOH/24cc A

(0:66:0)

(0:66:N:N)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		C	462 497 533		K73	4510
		*1	469 502		K73	4511
	2,3-dichloro-1,4-naphthoquinone	M	251.5 279 336.5		S2g	4512
	2-hydroxy-3-propenyl-1,4-naphthoquinone	*2	528	3.4	E18	4513
	2-hydroxy-3-(2-methylpropenyl)-1,4-naphthoquinone		265 420.5	4.4 3.3	C86	4514
		*2	498	3.4	E18	4515
	3-methyl-2H-benzo[h]chromene-5,6-quinone		297.5 513	4.4 3.2	C86	4516
	3-methyl-2H-benzo[g]chromene-5,10-quinone		275 463	4.3 3.3	C86	4517
	2-hydroxy-3-(1-methyl-cis-1-hepta-decenyl)-1,4-naphthoquinone	A	252 330 395	4.3 3.5 3.1	C103n	4518
	2-hydroxy-3-(1-methyl-trans-1-hepta-decenyl)-1,4-naphthoquinone	A	254 330 405	4.3 3.4 3.2	C103n	4519
	2-carboxy-5-methoxy-1,4-naphthoquinone	A	277 384	4.2 3.7	S26	4520
	2-hydroxy-3-phenyl-1,4-naphthoquinone	*2	480	3.4	E18	4521
	2-hydroxy-3-styryl-1,4-naphthoquinone	*2	548	3.4	E18	4522
	4-(2-hydroxy-1-naphthyl)-1,2-naphthoquinone	A	230 332.5 405	4.9 3.7 3.4	B3	4523
	8-amino-2-(p-ethoxyanilino)-5-hydroxy-1,4-naphthoquinone 4-imine	A	561 609		S6	4524
	1-diazo-2-naphthol; 1,2-naphthoquinone 1-azide		252 388	4.6 3.8	A23	4525

*1 conc. H₂SO₄ *2 0.1N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	2-diazo-1-naphthol; 1,2-naphthoquinone		250	4.3	A23	4526
	2-azide		398	4.0		
	4-diazo-1-naphthol; 1,4-naphthoquinone		281	4.0	A23	4527
	4-azide		290	4.0		
			371	4.5		

PART 28. OTHER CHROMOPHORES CONSISTING OF 2 CARBOAROMATIC CONDENSED RINGS

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
75	azulene	PE	238	4.2	P28	4528
			273	4.7		
			341	3.6		
			580	2.5		
			632	2.5		
			697	2.1		
		*1	222	4.2	C29	4529
			259	4.4		
			351	4.1		
C-75	1-methylazulene	PE	240	4.3	P28	4530
			280	4.6		
			347	3.7		
			608	2.4		
			664	2.2		
		*1	224	4.3	C29	4531
			266	4.2		
			366	4.0		
	2-methylazulene	PE	240	4.3	P28	4532
			284	4.9		
			347	3.7		
			569	2.4		
			612	2.4		
			672	2.0		
		*1	225	4.1	C29	4533
			262.5	4.4		
			370	4.3		
	4-methylazulene	PE	241	4.5	P28	4534
			284	4.7		
			346	3.7		
			568	2.6		
			616	2.5		
			679	2.1		
		*1	227	4.3	C29	4535
			262	4.4		
			351	4.1		
	5-methylazulene	PE	238	4.2	P28	4536
			279	4.8		
			343	3.6		
			592	2.6		
			647	2.5		
			716	2.1		

*1 50% H₂SO₄/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
C ₂ -75	6-methylazulene	*1	228 261.5 351	4.2 4.4 4.1	C29	4537
		PE	237 283 344 565 616 679	4.1 4.8 3.7 2.5 2.4 2.1	P28	4538
		*1	229.5 261.5 353	4.2 4.4 4.1	C29	4539
	1,2-dimethylazulene	PE	240 278 353	4.3 4.8 3.7	P27	4540
		*1	226 267.5 328	4.3 4.3 4.2	C29	4541
		*1	227 269 368.5	4.4 4.3 4.0	C29	4542
	1,4-dimethylazulene	PE	241 283 351	4.4 4.7 3.7	P27	4543
		*1	228.5 271 362	4.4 4.3 4.0	C29	4544
			623 763	2.5 2.1	P33	4545
	1,8-dimethylazulene	*1	227.5 268.5 360.5	4.4 4.3 4.0	C29	4546
		i0	578 628 693	2.5 2.4 2.0	H55	4547
		PE	234 287 351 553 660	4.2 4.9 3.7 2.4 2.0	P25	4548

*1 50% H₂SO₄/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C ₃ -75	4,5-dimethylazulene	iO	230	4.2	H56	4549
			284	4.5		
			343	3.5		
	4,7-dimethylazulene		243	4.4	P33	4550
			279	4.6		
			343	3.7		
			579	2.7		
			630	2.6		
			694	2.2		
		*1	229	4.0	C29	4551
			267.5	4.2		
			348	3.8		
	4,8-dimethylazulene	PE	246	4.5	P27	4552
			283	4.6		
			344	3.7		
	*1	227.5	4.3	C29	4553	
		267	4.5			
		355	4.1			
1,5,8-trimethylazulene		612	4.4	P33	4554	
		743	2.1			
2,4,5-trimethylazulene	iO	246	4.2	H56	4555	
		289	4.6			
		349	3.5			
2,4,8-trimethylazulene	*2	248	4.6	H54	4556	
		280	4.8			
		349	3.7			
4,8-dimethyl-6-isopropylazulene	*1	353.5	4.2	C29	4557	
C ₄ -75	1,3,4,8-tetramethylazulene	PE	249	4.4	P27	4558
			287	4.7		
			354	3.7		
N-75	2-aminoazulene	M	218	4.1	N18	4559
			294	4.9		
			387	3.9		
	1-acetamidoazulene	A	235	4.2	A27	4560
			288	4.6		
			360	3.6		
	2-acetamidoazulene	M	240	4.2	N18	4561
			294	5.0		
			379	4.1		
			548	2.6		

*1 50% H₂SO₄/W *2 pentane

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O-75	1-methoxyazulene		581		T12	4562
	2-ethoxyazulene		581		T12	4563
Cl-75	1-chloroazulene	cH	239	4.2	A27	4564
			280	4.8		
			345	3.7		
			362	3.7		
			586	2.7		
			608	2.6		
Cl ₂ -75	1,3-dichloroazulene	Hp	239	4.2	A27	4565
			287	4.6		
			352	3.8		
			369	3.9		
			638	2.6		
Br-75	1-bromoazulene	H	237	4.3	A27	4566
			280	4.6		
			362	3.7		
			586	2.5		
			605	2.5		
			662	2.2		
Br ₂ -75	1,3-dibromoazulene	H	239	4.2	A27	4567
			289	4.5		
			300	4.4		
			353	3.7		
			625	2.6		
			686	2.5		
			755	2.1		
BrN-75	1-acetamido-3-bromoazulene	A	241	3.4	A27	4568
			294	4.4		
		M	650	2.6	A27	4569
BrCl-75	1-bromo-3-chloroazulene	cH	239	4.3	A27	4570
			289	4.6		
			353	3.8		
			371	3.9		
			635	2.6		
			735	2.1		
75- $\underset{\text{C}}{\text{C}}\text{:C}$	5-isopropenylazulene	PE	588 648 715		P25	4571
C-75- $\underset{\text{C}}{\text{C}}\text{:C}$	2-methyl-5-isopropenylazulene	PE	578 624 689		P25	4572

(75)(C:C)

(75)(O:C)
0

system	compound	solv.	λ_{\max} .	loge	ref.	no.
	2-methyl-6-isopropenylazulene	PE	550 559 600 660		P25	4573
75-C:O C	1-acetylazulene	H	235 292 304 382 550 595 655	4.2 4.4 4.5 3.8 2.5 2.4 2.0	A27	4574
	5-acetylazulene	ch	568 620 681	2.7 2.7 2.3	T10	4575
75-C:O O	5-azulenecarboxylic acid	A	232 287 356 374 565 617 679	4.4 4.8 3.6 3.6 2.5	P26	4576
	6-azulenecarboxylic acid	A	280 344 633 698 750	4.9 3.6 2.5	P26	4577
	methyl 5-azulenecarboxylate	PE	565 615 680	2.6 2.6 2.3	P26	4578
	methyl 6-azulenecarboxylate	PE	635 700 735	2.5 2.4 2.1	P26	4579
C-75-C:O O	2-methyl-5-azulenecarboxylic acid	A	245 291 362 382 552 601 658	4.2 5.0 3.8 3.7 2.5	P26	4580
	2-methyl-6-azulenecarboxylic acid	A	287 354 369 617 679 753	5.0 3.9 3.9 2.5	P26	4581

(75)(0:0)

(75)(6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\text{C}_2\text{-}\overset{\text{O}}{\underset{\text{O}}{\text{C}}}\text{-}\overset{\text{O}}{\text{C}}\text{:O}$	methyl 2-methyl-5-azulenecarboxylate	PE	553 600 660	2.5 2.5 2.2	P26	4582
	methyl 2-methyl-6-azulenecarboxylate	PE	615 675 750	2.5 2.4 2.0	P26	4583
	4,8-dimethyl-6-azulenecarboxylic acid	A	244 284 343 347 610 669 740	4.5 4.7 3.7 3.7	P31	4584
	methyl 4,8-dimethyl-6-azulenecarboxylate	*1	613 673 747		P31	4585
$\text{C}_4\text{-}\overset{\text{O}}{\underset{\text{O}}{\text{C}}}\text{-}\overset{\text{O}}{\text{C}}\text{:O}$	ethyl 4,5:7,8-bis(trimethylene)-6-azulenecarboxylate	cH	587-94 630 696	2.8 2.8 2.4	T11	4586
$\text{O}:\text{C}-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}\text{-}\overset{\text{O}}{\text{C}}\text{:O}$	ethyl 2-amino-1,3-azulenedicarboxylate	M	245 315 380 465	4.4 4.8 3.8 4.4	N18	4587
75-N:O	1-nitroazulene	H	219 309 382 402 532	4.3 4.3 4.0 4.0 2.8	A27	4588
Br-75-N:O	1-bromo-3-nitroazulene	A	222 278 317 410	4.4 4.4 4.3 4.1	A27	4589
		*2	532	3.0	A27	4590
75-6	1-phenylazulene	PE	237 294 353 368 606 663 737	4.5 4.6 3.9 3.9	P23	4591

*1 pentane *2 CH_2Cl_2 + A (3:7)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	2-phenylazulene	PE	240	4.2	P23	4592
			301-3	5.0		
			389	4.2		
			577			
			622			
	5-phenylazulene	cH	591	2.7	T9	4593
			646	2.7		
			713	2.4		
C-75-6-C	indeno[2,3-a]azulene	PE	264	4.4	P27	4594
			302	4.8		
			379	4.0		
			399	4.2		
75-N:N-6	1-phenylazoazulene		235	4.3	A27	4595
			278	4.3		
			330	4.2		
			414	4.5		
			418	4.5		
75 6 > C:O	5-benzoylazulene	cH	571	2.7	T10	4596
			622	2.6		
			685	2.3		
75-66	5-(2-naphthyl)azulene	cH	591	2.8	T9	4597
			645	2.8		
			712.5	2.5		

PART 29. CHROMOPHORES CONSISTING OF 3 CARBOAROMATIC CONDENSED RINGS

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
665	acenaphthylene	A	265 324	3.3 4.0	C102n	4598
O:C-665-C:O C C	1,2-diisobutyroylacenaphthylene	M	238 338	4.4 4.2	A17	4599
	1,2-(1,14-dioxotetradecamethylene)-acenaphthylene	M	235 338	4.4 4.1	A17	4600
N-665:665-N	2,2'-diamino-9,9'-difluorenylidene	A	250 294 455	5.1 5.0 4.7	K76	4601
	2,2'-diacetamido-9,9'-difluorenylidene	A	250 290 451	5.2 5.1 3.7	K76	4602
665:C-C	9-ethylidenefluorene	A	230 255.5 280	4.6 4.6 4.2	G27	4603
Cl₂-665:C-Cl₂	2,7-dichloro-9-(dichloromethylene)-fluorene	A	230 265 285	4.4 4.7 4.4	G26	4604
Br₂-665:C-Cl₂	2,7-dibromo-9-(dichloromethylene)-fluorene	A	230 267.5 287.5	4.4 4.8 4.4	G26	4605
665:C:C:665	di-(9-fluorenylidene)ethylene; 1,1,4,4-di(2,2'-biphenylene)butatriene	B	484		K75	4606
665:C:C:C:C:665	di-(9-fluorenylidene)butatriene; 1,1,6,6-di(2,2'-biphenylene)-hexapentaene	B	500 543	4.8 5.3	K75	4607
665:C:C:C:C:C:C:665	di-(9-fluorenylidene)hexapentaene; 1,1,8,8-di(2,2'-biphenylene)-octaheptaene	B	460 540 597		K75	4608
665:N-O	fluoren-9-one oxime		242 300 352	4.4 4.0 2.6	R3c	4609
665:O	fluoren-9-one	A	257 293 378	5.0 3.5 2.4	J25	4610
		cH	257 295 378	5.0 3.5 2.4	F49	4611

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-665:0	4-methylfluoren-9-one	A	256 302 382-98	4.9 3.5 2.6	F49	4612
N-665:0	2-acetamidofluoren-9-one	*1	525	3.2	B105	4613
	2-benzamidofluoren-9-one	*1	525	2.8	B105	4614
665:0 $\begin{array}{c} \text{C:O} \\ \\ \text{N} \end{array}$	1-carbamoylfuoren-9-one	A	259 292-304 382-404	4.7 3.5 2.4	F49	4615
665:0 $\begin{array}{c} \text{C:O} \\ \\ \text{O} \end{array}$	1-carboxyfluoren-9-one	A	259 ~297 372-95	4.7 3.5 2.4	f49	4616
	4-carboxyfluoren-9-one	A	259 303 368-78	4.6 3.7 2.5	F49	4617
	1-ethoxycarbonylfuoren-9-one	A	259 296 382	4.8 3.5 2.4	F49	4618
(665:0) (O:N) ₃ $\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	2,4,7-trinitrofluoren-9-one	A	280 336-48	4.5 3.9	F49	4619
O:665:0	acenaphthene-1,2-quinone	A	226 328-38	4.5 3.9	F49	4620
6 ₃	phenanthrene	A	250 293 330 346	4.7 4.1 2.5 2.5	M23	4621
		cH	252 293 330 346	4.8 4.2 2.4 2.4	F49	4622
	anthracene	A	252 338 357 375.5	5.3 3.7 3.9 3.9	B6	4623
		cH	253 339 356 374	5.3 3.7 3.9 3.9	F49	4624

*1 P with KOH/M

(6₃)(6₃)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C-6 ₃	1-ethylphenanthrene	A	256	4.7	A37n	4625
			300	4.1		
			333.5	2.5		
			349	2.5		
	2-isopropylphenanthrene	PE	253	4.9	R43	4626
			290	4.0		
			330	2.2		
	4-phenanthrylacetic acid	A	252	4.8	J24u	4627
			297	4.0		
	9-methylphenanthrene	A	252	4.8	G27	4628
			297	4.1		
			331	2.6		
			349	2.6		
C ₂ -6 ₃	1-methylantracene	iO	253	5.2	M57	4629
			343	3.7		
			359	3.9		
			377	3.9		
	9-methylantracene	A	256	5.3	J25	4630
			348	3.8		
			366	3.9		
			386	3.9		
	1,2-dimethylphenanthrene	A	257	4.8	A37n	4631
			300	4.1		
			330	2.4		
			335	2.6		
	1,3-dimethylphenanthrene	A	258	4.7	A37n	4632
			303	4.1		
			335	2.7		
			350	2.7		
	1,6-dimethylphenanthrene	PE	257	4.8	R43	4633
			301	4.3		
			336	2.7		
	1,7-dimethylphenanthrene	A	259	4.8	A37n	4634
			301	4.2		
			335	2.6		
			351	2.3		
	1,8-dimethylphenanthrene	A	258	4.8	A37n	4635
			306	4.2		
	1,9-dimethylphenanthrene	A	258	4.8	A37n	4636
			303	4.2		
			335	2.7		
			351	2.7		

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	2,3-dimethylphenanthrene	A	254 297 326 349	4.7 4.0 2.6 2.2	A37n	4637
	2,5-dimethylphenanthrene	A	253 298 332 349	4.8 4.0 2.6 2.2	A37n	4638
	4,5-dimethylphenanthrene	A	256 314	4.7 4.2	W43	4639
	4,9-dimethylphenanthrene	A	253 299 334 350	4.8 4.1 2.7 2.7	A37n	4640
	9,10-dimethylphenanthrene	A	255 300 336 352.5	4.8 4.1 2.6 2.6	G27	4641
	1,2-cyclopentenophenanthrene	A	258 300 336 352	4.8 4.2 2.5 2.5	M23	4642
	1,10-trimethylenephenanthrene	A	257 303 337 353.5	4.8 4.2 3.0 3.1	C39	4643
	4,5-methylenephenanthrene	A	252 299 329 345	4.7 4.1 2.7 2.6	J25	4644
	4,5-ethylenephenanthrene; 4,5-dihydro-pyrene	Hp	257 298	4.6 4.1	F51g	4645
	1,4-dimethylanthracene	io	214 254 364 382	4.1 5.2 3.9 3.9	M57	4646
	2,9-dimethylanthracene	A	251 368 386	5.1 3.8 3.8	P13	4647
	9,10-dimethylanthracene	A	220 260 378 398	4.0 5.2 4.0 4.0	J25	4648

(6₃)(6₃)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₃ -6 ₃	aceanthreno[2,1-a]aceanthrene	B	406	4.3	C36	4649
	1,2,6-trimethylphenanthrene	PE	259 302 338	4.8 4.2 2.7	R43	4650
	1,2,7-trimethylphenanthrene	A	260 301 336 353	4.8 4.1 2.7 2.6	A37n	4651
	1,2,8-trimethylphenanthrene	PE	262 307 338	4.9 4.3 2.5	R43	4652
	2-isopropyl-1,9-dimethylphenanthrene	PE	261 304 337	4.8 4.1 2.6	R43	4653
	1,3,7-trimethylphenanthrene	A	260 304 336	4.8 4.1 2.5	A37n	4654
	1,4,5-trimethylphenanthrene		255 305 338 353	4.4 3.8 2.5 2.4	N8	4655
	1,4,7-trimethylphenanthrene	A	256 307 337 354	4.8 4.1 2.6 2.5	A37n	4656
	1,6,7-trimethylphenanthrene	A	258 302 335 351	4.8 4.2 2.8 2.7	A37n	4657
	3',8-dimethyl-1,2-cyclopentenophenanthrene		264	4.8	W50	4658
	1,2,3,4-tetrahydro-7-methylbenz[a]-anthracene	A	261 351 368 389	5.3 3.8 3.9 4.0	F25	4659
	1,2,7,8-tetramethylphenanthrene	PE	264 307 340	4.8 4.2 2.7	R43	4660
	(4-ethyl-5,8-dimethyl-1-phenanthryl)-acetic acid	cH	260 315 342 358	4.8 4.2 2.8 2.8	F49	4661

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N-6 ₃	4,5,9,10-tetramethylphenanthrene	A	256	4.6	M58	4662
			300	4.0		
			345	2.6		
			360	2.5		
	2-aminoanthracene	A	263	4.9	J18	4663
			319	3.4		
			334	3.6		
			352	3.5		
			396-412	3.5		
		*1	253	5.4	J18	4664
			339	3.6		
			357 377	3.8 3.7		
O-6 ₃	9-aminoanthracene	D	269	4.9	C103	4665
			357	3.8		
			405	3.6		
	1-hydroxyphenanthrene; 1-phenanthrol	*2	233	4.8	D22u	4666
			280	3.8		
			315	3.0		
			329	3.0		
	1-anthracenol	A	246-51	4.5	F49	4667
			295-305	4.0		
			339	3.4		
			355	3.5		
	2-anthracenol	A	225	4.8	F49	4668
			292	4.1		
			337	3.0		
			354	3.0		
	9-anthracenol	A	248	4.7	F49	4669
			300-4	3.9		
			341	3.1		
			358	3.1		
O ₂ -6 ₃	1,2-diacetoxyanthracene	D	361.5 381.5	3.8 3.8	B129	4670
O ₃ -6 ₃	1,2,8-triacetoxyanthracene	D	366 386.5	3.8 3.7	B129	4671
	1,4,5-triacetoxyanthracene	D	369 390	3.9 3.8	B129	4672
	1,8,10-triacetoxyanthracene	D	371.5 392	4.0 3.9	B129	4673

*1 2N HCl/50% A *2 5% NaOH/W

(6₃)(6₃)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O ₄ -6 ₃	1,2,5,8-tetracetoxyanthracene	D	370.5 391	3.9 3.8	B129	4674
	1,2,8,10-tetracetoxyanthracene	D	373 394	3.9 3.9	B129	4675
	1,2,9,10-tetracetoxyanthracene	D	377 398	4.0 3.9	B129	4676
		*1	495 620		B129	4677
		*2	527 569 613		B129	4678
	1,4,5,8-tetracetoxyanthracene	D	374 395	3.9 3.8	B129	4679
	1,4,9,10-tetracetoxyanthracene	D	380 401.5	4.0 3.9	B129	4680
	1,8,9,10-tetracetoxyanthracene	D	380.5 403	4.0 3.9	B129	4681
O ₅ -6 ₃	1,2,5,8,10-pentacetoxyanthracene	D	378 399	3.9 3.9	B129	4682
	1,2,8,9,10-pentacetoxyanthracene	D	382 403	3.9 3.7	B129	4683
	1,4,5,8,9-pentacetoxyanthracene	D	382 404	3.9 3.8	B129	4684
	1,4,5,9,10-pentacetoxyanthracene	D	385 407	4.0 3.9	B129	4685
OC ₂ -6 ₃	1,10-trimethylene-9-phenanthrenol	A	255 304 348 365	4.7 4.1 3.1 3.1	C54n	4686
O ₂ N ₂ -6 ₃	1,4-diamino-9,10-anthracenediol	M	250		S2g	4687
Cl-6 ₃	2-chlorophenanthrene	A	254 295 333	4.8 3.9 2.4	J25	4688
Br-6 ₃	2-bromophenanthrene	A	255 333	4.9 2.5	J25	4689

*1 H₂SO₄ *2 alkaline solution

(6₃)(6₃)(O:C)(C:C)

system	compound	solv.	λ _{max} .	logε	ref.	no.
	9-bromophenanthrene	cH	256 302 334	4.8 4.2 2.4	F49	4690
Br ₂ -6 ₃	9,10-dibromoanthracene	cH	261		S2g	4691
BrC-6 ₃	9-bromo-10-methylphenanthrene	A	256 301.5 335	4.7 4.1 2.4	G27	4692
6 ₃ -C:C-C	9-(3-hydroxy-1-butenyl)phenanthrene	A	257 301	4.7 4.1	B117	4693
	9-(3-hydroxy-1-butenyl)anthracene	A	255 360 382	5.1 3.9 3.9	B117	4694
6 ₃ -C:C C	9-isopropylphenanthrene	A	252 294 330 348	4.8 4.1 2.5 2.5	F49	4695
C-6 ₃ -C:C-C	9-propenyl-10-propylantracene	A	260.5 377.5 393	5.1 4.0 3.9	B6	4696
6 ₃ >C:C<6 ₃ 6 ₃	tetra-9-phenanthrylethylene	A/D	252 298.5 361 377	5.3 5.1 4.6 4.6	J24	4697
6 ₃ -C:N	9-cyanoanthracene	A	256 364 382	5.2 3.9 3.9	J25	4698
6 ₃ -C:O	9-anthracenecarboxaldehyde	Hp	262 371 398	5.1 3.8 3.8	J25	4699
6 ₃ -C:O C	1-acetylanthracene	A	241 254 385	4.8 4.8 3.7	J25	4700
	2-acetylanthracene	A	270 342 360	4.8 3.7 3.7	F49	4701
6 ₃ -C:C-C:O C	9-(3-oxo-1-butenyl)phenanthrene	A	250 334	4.7 4.1	B117	4702
	9-(3-oxo-1-butenyl)anthracene	A	217 254 383	4.4 5.0 3.9	B117	4703

$(6_3)(0:\zeta)$ $(6_3)(6)$

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
$6_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}:\text{O}$	methyl 2-phenanthrenecarboxylate		263 344 361	4.9 2.9 2.9	W42n	4704
$\text{C}-6_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}:\text{O}$	4-(hydroxymethyl)-5-phenanthrene-carboxylic acid lactone	A	258 348 365	4.5 3.2 3.2	B15	4705
$\text{O}:\overset{\text{O}}{\underset{\text{O}}{\text{C}}}-6_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}:\text{O}$	methyl 5-formyl-4-phenanthrene-carboxylate	A	276	4.5	B15	4706
$\text{O}:\overset{\text{O}}{\underset{\text{Cl}}{\text{C}}}-6_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}:\text{O}$	5-formyl-4-phenanthrenecarboxylic chloride	A	251-67 346 362	4.5 3.0 3.0	F49	4707
$6_3-\overset{\text{O}}{\underset{\text{O}}{\text{N}}}:\text{O}$	9-nitroanthracene	A	251 348 363 383	5.1 3.6 3.6 3.6	J18	4708
6_3-6	2-phenylphenanthrene	A	268	5.0	F49	4709
	9-phenylphenanthrene	A	256 304	5.3 4.6	B109	4710
	9-phenylanthracene		255.5 364.5 384	5.1 4.1 4.0	S77	4711
$\text{C}-6_3-6-\text{C}$	11H-indeno[2,3-a]phenanthrene	A	271.5 281 317 348 366	4.8 4.8 4.4 3.3 3.3	C82	4712
	12H-indeno[3,2-b]phenanthrene	A	270 279 355 363.5		C80	4713
	13H-indeno[3,2-c]phenanthrene	A	266 312 326 344 362	4.7 4.5 4.5 3.5 3.5	F49	4714
	8H-naphtho[1,2,3-de]anthracene	A	266 325 350	4.5 4.3 3.6	C46b	4715
	8H-benzo[fg]naphthacene	A	276 327 372	4.3 4.1 3.1	C46a	4716

system	compound	solv.	λ _{max} .	logε	ref.	no.
	5H-naphtho[1,2,3-fg]anthracene	A	257 404 428	4.7 4.0 4.0	C58	4717
C-6 ₃ -6-C ₃	10-isopropyl-7-methyl-11H-indeno[2,3-a]-phenanthrene	A	284 322 348 366	4.9 4.4 3.1 3.0	C82	4718
N-6 ₃ -6	9-anilino-10-phenylanthracene		253	5.0	J34	4719
6 ₃ -6-0	9-(p-methoxyphenyl)phenanthrene	A	249 256 299	4.9 4.9 4.4	B108	4720
6-6 ₃ -6	9,10-diphenylanthracene	A	259 372 392	5.0 4.0 4.0	J25	4721
C-6-6 ₃ -6-C C ₂	7,16-dihydrodibenzo[a,o]perylene	A	266 318.5 384	4.5 4.1 4.2	C50	4722
6-6 ₃ -6 6-6 ₃ -6	2,3,9,10-tetrahydroanthracene	A	291 384	4.9 4.0	F49	4723
6 ₃ -N:C-6 ₃ -N 6 ₃ -N:C-6 ₃ -N	2-[bis(p-dimethylaminophenyl)methylene-amino]anthracene	A	452	4.2	B125	4724
		*1	415	4.3	B125	4725
O-6-6 ₃ -C:O N	10-(p-methoxyphenyl)-9-phenanthrene-carbonamide	A	253 290	4.9 4.6	B108	4726
6 ₃ -66	1-(1-naphthyl)phenanthrene	A	256 301	4.7 4.3	B1g	4727
C-6 ₃ -66-C	tribenzo[a,c,i]fluorene	A	255 347	4.9 4.3	J16	4728
66-6 ₃ -66	1,10-di(1-naphthyl)anthracene	A	227 255 373 393	5.1 4.8 4.0 3.9	J21n	4729
O:6 ₃ :O	phenanthrene-9,10-quinone	D	254 308 362 390-6	4.5 3.7 3.1 3.0	F49	4730
	anthracene-1,2-quinone	C	295 450	4.6 3.8	T4	4731

*1 HCl salt

(0:6₃:0)(0:6₃:0)




system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
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*1 H₂SO₄ *2 o-chlorophenol *3 HCl salt in M

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	1-(methylamino)anthraquinone	M	243 312 503	4.5 3.8 3.9	P8	4747
	2-(methylamino)anthraquinone	M	243 303 462	4.5 4.3 3.8	P8	4748
	1-(dimethylamino)anthraquinone	M	246 317 503	4.5 3.8 3.7	P8	4749
	2-(dimethylamino)anthraquinone	M	244 307 472	4.5 4.3 3.8	P8	4750
	2-anilinoanthraquinone	P	475	3.8	B105	4751
		*2	710	3.9	B105	4752
	2,2'-dianthraquinonylamine	P	470	4.1	B105	4753
	1-acetamidoanthraquinone	M	400	3.7	P8	4754
		*1	414	3.7	P8	4755
	2-acetamidoanthraquinone	M	367	3.6	P8	4756
		*3	515	3.8	B105	4757
	1-(N-methylacetamido)anthraquinone	*1	~337	3.7	P8	4758
	N,N-di-(2-anthraquinonyl)formamide	P	605	2.8	B106	4759
	1-benzamidoanthraquinone	M	405	3.8	P8	4760
		P	415	3.8	P8	4761
		*1	424	3.8	P8	4762
	2-benzamidoanthraquinone	*1	375	3.8	P8	4763
		*3	527	4.0	B105	4764
	1-(N-methylbenzamido)anthraquinone	*1	~335		P8	4765
	N,N-di-(2-anthraquinonyl)benzamide	P	615	2.3	B106	4766
	2-(p-toluenesulfonamido)anthraquinone	*3	500	3.8	B105	4767
	1,4-diaminoanthraquinone	M	248		S2g	4768

0:6₃:0
N₂

*1 o-chlorophenol *2 M containing excess KOH *3 P containing KOH/M

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		M	552 592	4.2 4.2	P8	4769
		*2	554 596	4.1 4.1	P8	4770
	1,5-diaminoanthraquinone	M	229 275	4.2	S2g	4771
		M	488	4.1	P8	4772
		*2	500	4.1	P8	4773
	1,8-diaminoanthraquinone	M	500		P9	4774
	1,2':1',2'-diiminodianthraquinone; indanthrone	*1	465		B105	4775
	1,2'-imino-1',2-(methyylimino)dianthra- quinone; N-methylindanthrone	P	670		B105	4776
		*1	470		B105	4777
	1,2':1',2-bis(methyylimino)dianthra- quinone; N,N'-dimethylindanthrone	P	655		B105	4778
		*1	472		B105	4779
	1,4-diacetamidoanthraquinone	*2	474	3.8	P8	4780
	1,5-diacetamidoanthraquinone	*2	435	4.0	P8	4781
	1-acetamido-4-benzamidoanthraquinone	*2	480	3.8	P8	4782
	1-acetamido-5-benzamidoanthraquinone	*2	440	4.0	P8	4783
	1,4-dibenzamidoanthraquinone	*2	488	3.9	P8	4784
	1,5-dibenzamidoanthraquinone	*2	445	4.1	P8	4785
	1,4,5-triaminoanthraquinone	M	561-601		P9	4786
	1,4,5,8-tetraminoanthraquinone	M	600-29		P9	4787
	1-hydroxyanthraquinone	M	252 327 402	4.5 3.5 3.7	P8	4788
		*3	246 313 493	4.5 3.7 3.7	P8	4789

*1 conc. H₂SO₄ *2 o-chlorophenol *3 anion in M

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
0:6 ₃ :0 0 ₂		*1	248 315 484	4.5 3.8 3.8	M52	4790
	2-hydroxyanthraquinone	M	245 271 328 368	4.3 4.5 3.6 3.6	P8	4791
		*2	243 304 465	4.5 4.4 3.7	P8	4792
	1-methoxyanthraquinone	M	254 328 378	4.5 3.5 3.7	P8	4793
	2-methoxyanthraquinone	M	246 267 329 363	4.2 4.5 3.5 3.6	P8	4794
	1,2-dihydroxyanthraquinone; alizarin	A	251 435	4.5 4.8	M52	4795
		M	247		S2g	4796
		*3	229 273.5 564	4.3 4.5 4.2	M52	4797
	1,4-dihydroxyanthraquinone; quinizarin	H	250 280 325 474	4.5 4.1 3.4 4.0	M52	4798
	1,5-dihydroxyanthraquinone; anthrarufin	A	225 253 418 437	4.6 4.2 4.0 4.0	M52	4799
		*3	230 280 480	4.6 4.2 4.1	M52	4800
	1,8-dihydroxyanthraquinone; chrysazin	H	254 284 431.5	4.4 4.2 4.2	M52	4801
	2,6-dihydroxyanthraquinone; anthraflavin	A	274 301.5 349	4.5 4.3 3.9	M52	4802

*1 0.1N NaOH/W *2 anion in M *3 1% NaOH/W

(0:6₃:0)(0:6₃:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
$\begin{array}{c} \text{O:6}_3\text{:O} \\ \text{O}_3 \end{array}$	1-hydroxy-2-methoxyanthraquinone	A	246.5 425	4.5 3.8	M52	4803
		*1	256 513	4.5 3.8	M52	4804
	1-hydroxy-5-methoxyanthraquinone	A	223 254 400	4.5 4.3 3.9	M52	4805
	1-hydroxy-8-methoxyanthraquinone	H	255 281 410	4.2 4.0 3.9	M52	4806
	1,2-dimethoxyanthraquinone	A	251 374	4.5 3.7	M52	4807
	1,5-dimethoxyanthraquinone	A	255 387	4.4 4.0	M52	4808
	2,6-dimethoxyanthraquinone	A	271.5 299 346	4.6 4.4 3.2	M52	4809
	1,2,3-trihydroxyanthraquinone; anthragalloI	A	245.5 283.5 413.5	4.2 4.4 3.7	B127	4810
	1,2,4-trihydroxyanthraquinone; purpurine	*2	489 520 560		G12	4811
	1,4,5-trihydroxyanthraquinone	M	492		P9	4812
	1,3-dihydroxy-2-methoxyanthraquinone	A	240 281.5 407.5	4.5 4.2 3.6	B127	4813
	3-hydroxy-1,2-dimethoxyanthraquinone	A	241 281 362.5	3.9 4.3 3.4	B127	4814
	1,2,3-trimethoxyanthraquinone	A	240 276.5 356	4.6 4.4 3.5	B127	4815
	1,4,5,8-tetrahydroxyanthraquinone	M	552		P9	4816
	1,2,3,5,6,7-hexahydroxyanthraquinone; rufigallic acid		213 295 349 438	4.2 4.6 3.9 3.9	B67	4817

*1 1% NaOH/W *2 dil. acid

system	compound	solv.	λ_{\max} .	loge	ref.	no.
O:6 ₃ :O O ₂ C	1,8-dihydroxy-3-methylanthraquinone; chrysophanol		225	4.6	B67	4818
			255	4.3		
			287.5	4.1		
			430	4.1		
O:6 ₃ :O O ₃ C	1,3,8-trihydroxy-6-methylanthraquinone; emodin		222	4.6	B67	4819
			252	4.3		
			289	4.3		
			437	4.1		
	1,4,5-trihydroxy-2-methylanthraquinone; islandicin		232	4.5	B67	4820
			252.5	4.3		
			289	3.9		
			390-402	3.3		
			492	4.1		
	1,4,5-trihydroxy-7-methylanthraquinone; helminthosporin		231	4.5	B67	4821
			255	4.2		
			289	3.8		
			405-15	3.9		
			490	4.1		
O:6 ₃ :O O ₄ C	1,2,3,5-tetrahydroxy-6-methylanthraquinone; copareolatin	A	288.5	4.3	B127	4822
			432.5	3.9		
	1,4,5,7-tetrahydroxy-2-methylanthraquinone; catenarin	A	231	4.5	B67	4823
			280	4.2		
			488.5	4.2		
	1,4,5,8-tetrahydroxy-2-methylanthraquinone; cynodontin	A	237.5	4.3	B67	4824
			296	3.6		
			518	3.9		
			558	3.9		
	1,3,5-trihydroxy-2-methoxy-6-methylanthraquinone	A	280	4.5	B127	4825
			432	4.1		
	1,5-dihydroxy-2,3-dimethoxy-6-methylanthraquinone	A	224.5	4.4	B127	4826
			276	4.5		
			427.5	4.1		
	1(or 5),2-dimethyl ether of 1,2,3,5-tetrahydroxy-6-methylanthraquinone	A	281.5	4.3	B127	4827
			407.5	3.7		
	1(or 5),2,3-trimethyl ether of 1,2,3,5-tetrahydroxy-6-methylanthraquinone	A	276.5	4.6	B127	4828
			411	3.9		
	1,2,3,5-tetramethoxy-6-methylanthraquinone	A	276	4.6	B127	4829
			358	3.9		
O:6 ₃ :O ON	1-amino-4-hydroxyanthraquinone	M	251 285		S2g	4830
O:6 ₃ :O S ₂	anthraquinone-1,5-disulfonic acid	0.0	480 505		M33	4831

(0:6₃:0)(0:6₃:C)(6)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	anthraquinone-1,8-disulfonic acid	0.0	425 525		M33	4832
$\text{O:6}_3\text{:O}$ Cl	1-chloroanthraquinone	M	253 333	4.6 3.7	P8	4833
	2-chloroanthraquinone	M	256 274 325	4.7 4.2 3.6	P8	4834
$\text{O:6}_3\text{:O}$ ClN	2-amino-1-chloroanthraquinone	P	440	3.7	B105	4835
		*1	650	3.2	B105	4836
$\text{O:6}_3\text{:O}$ BrN	1-bromo-4-(methylanino)anthraquinone	M	247 318		S2g	4837
$\text{O:6}_3\text{:O -C:N}$	1-cyanoanthraquinone	M	257 325	4.6 3.7	P8	4838
	2-cyanoanthraquinone	M	255 325	4.7 3.7	P8	4839
$\text{O:6}_3\text{:O -N:O}$ O	1-nitroanthraquinone	M	255 325	4.6 3.6	P8	4840
	2-nitroanthraquinone	M	258 323	4.6 3.7	P8	4841
$\text{O:6}_3\text{:O -N:O}$ N O	2-benzamido-1-nitroanthraquinone	Ac	505	4.0	B105	4842
		EA	470	3.8	B105	4843
		P	520	4.0	B105	4844
		*2	480	3.9	B105	4845
$\text{O:6}_3\text{:O -6}$	2-phenylphenanthrene-9,10-quinone	D	267 342-58 400-16	4.5 3.5 3.0	F49	4846
$\text{O:6}_3\text{:C-6-N}$	anthraquinone 9-[p-(dimethylamino)-phenyl]methide}	Ac	450	4.1	H88	4847
		B	442	4.1	H88	4848
		C	450	4.1	H88	4849
		cH	425	4.1	H88	4850
		M	455	4.1	H88	4851
$\text{O:6}_3\text{:C-6-N}$ 6	anthraquinone 9-[1-[p-(dimethylamino)-phenyl]-1-phenylmethide}	Ac	420	3.9	H88	4852

*1 pyridine containing KOH/M *2 morpholine

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$\begin{array}{c} \text{O}:\text{C}_3:\text{C} \begin{array}{l} \nearrow \text{6-N} \\ \searrow \text{6-N} \end{array} \end{array}$	anthraquinone 9-{bis[p-(dimethylamino)-phenyl]methide}	B	425	3.9	H88	4853
		C	430	3.9	H88	4854
		cH	410	4.0	H88	4855
		M	425	3.8	H88	4856
		Ac	455	4.1	H88	4857
		B	445	4.1	H88	4858
		C	455	4.1	H88	4859
		cH	420	4.1	H88	4860
		M	475	4.1	H88	4861
		*1	625	4.1	H88	4862
765	benz[a]azulene	cH	300 381 622	4.8 3.7 2.5	N25	4863
		cH	577	2.6	K38	4864
			286 351	4.8 3.6	P24	4865
C-765	10-methylbenz[a]azulene		634		T13	4866
$\begin{array}{c} \text{765-C:O} \\ \text{O} \end{array}$	ethyl benz[a]azulene-7-carboxylate		663		T13	4867
765-6	8-phenylbenz[a]azulene	cH	627.5	2.8	T9	4868
	10-phenylbenz[a]azulene	cH	641		T13	4869

*1 HC10₄/M


PART 30. CHROMOPHORES CONSISTING OF 4 CARBOAROMATIC CONDENSED RINGS

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
C ₂ -6655	5,10-dimethylindeno[2,1-a]indene	A	230	4.2	B62g	4870
			282	4.7		
			389	4.0		
			412	4.1		
N:C-6655-C:N	5,10-dicyanoindeno[2,1-a]indene	A	293	4.6	F30n	4871
			307	4.7		
			335	4.7		
6-6655-6	5,10-diphenylindeno[2,1-a]indene	A	260	4.7	B62g	4872
			287	4.6		
			422	4.2		
			446	4.2		
C ₂ -6655:O	7,9-dihexylcyclopenteno[a]acenaphthylen-8-one	10	278	4.6	A17	4873
			265	3.9		
	7,9-dodecamethylenecyclopenteno[a]-acenaphthylen-8-one	10	278	4.6	A17	4874
			365	3.9		
6 ₃ 5	fluoranthene	A	236	4.7	S78	4875
			287	4.5		
			342	3.9		
			358.5	3.9		
C-6 ₃ 5	1-methylfluoranthene	A	239	4.7	S78	4876
			286.5	3.9		
			348	3.9		
			364	3.9		
	2-methylfluoranthene	A	236.5	4.7	S78	4877
			289.5	4.4		
			346	3.9		
			362	3.9		
	3-methylfluoranthene	A	239	4.7	S78	4878
			290.5	4.5		
			348	4.0		
			364	4.0		
	7-methylfluoranthene	A	235	4.6	S78	4879
			288	4.3		
			350	3.9		
			366	3.9		
	8-methylfluoranthene	A	236	4.6	S78	4880
			290	4.6		
			346	3.9		
			362	3.9		

(6₃5)(6₃5)(O:C)
0

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
C ₂ -6 ₃ 5	1,3-dimethylfluoranthene	A	242	4.7	S78	4881
			290.5	4.5		
			352	4.0		
			368	4.0		
	2,3-dimethylfluoranthene	A	241	4.7	S78	4882
			293	4.4		
			350	3.9		
			366	4.0		
C ₃ -6 ₃ 5	1,2,3-trimethylfluoranthene	A	243	4.7	S78	4883
			292.5	4.5		
			352	4.0		
			367	4.0		
N-6 ₃ 5	1-aminofluoranthene	A	225	4.6	F49	4884
			259	4.6		
			285	4.2		
			327	4.0		
	1-(ethoxycarbonylamino)fluoranthene	A	225	4.6	F49	4884
			259	4.6		
			285	4.2		
			327	4.0		
	1-(ethoxycarbonylamino)fluoranthene	A	393	4.0	F49	4885
			248	4.6		
			288	4.5		
			331	4.0		
	1-(ethoxycarbonylamino)fluoranthene	A	360	3.9	F49	4885
			248	4.6		
			288	4.5		
			331	4.0		
O-6 ₃ 5	1-methoxyfluoranthene	A	246.5	4.7	S78	4886
			285.5	4.4		
			372	4.0		
	3-methoxyfluoranthene	A	240	4.7	S78	4887
			296	4.6		
			363.5	4.1		
	7-methoxyfluoranthene	A	222	4.6	S78	4888
			246	4.3		
			290	3.7		
			352	4.1		
	8-methoxyfluoranthene	A	363	4.1	S78	4889
			236	4.6		
			295	4.6		
			344	3.7		
	8-methoxyfluoranthene	A	361	3.8	S78	4889
			236	4.6		
			295	4.6		
			344	3.7		
6 ₃ 5-C(=O) N	fluoranthene-1-carbonhydrazide	A	238	4.6	F49	4890
			289	4.4		
			328	3.9		
			350	3.9		
	ethyl fluoranthene-1-carboxylate	A	362	3.9	F49	4891
			238	4.6		
			289	4.4		
			328	3.9		
	ethyl fluoranthene-1-carboxylate	A	350	3.9	F49	4891
			362	3.9		
			244-73	4.5		
			285-95	4.3		
	ethyl fluoranthene-1-carboxylate	A	329	3.9	F49	4891
			359-75	3.8		
			244-73	4.5		
			285-95	4.3		
	ethyl fluoranthene-1-carboxylate	A	329	3.9	F49	4891
			359-75	3.8		
			244-73	4.5		
			285-95	4.3		

(6₃5:C)(0:C)
0(6₄)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
6 ₃ 5:C-C:O 	benzo[a]fluorene-11-ylidenesuccinic acid	A	263	4.8	F49	4892
			293	4.2		
			314	4.0		
			344	3.2		
6 ₃ 5:N-N	benzo[a]fluorene-11-one 2,4-dinitro-phenylhydrazone	D	256	3.7	F49	4893
			415	3.4		
	benzo[a]fluorene-11-one semicarbazone	A	242	4.6	F49	4894
			308	4.1		
			352-67	3.9		
6 ₃ 5:N-O	benzo[a]fluorene-11-one oxime	cH	260-8	4.6	F49	4895
			286	4.5		
			298	4.5		
			318	3.6		
			360	3.5		
6 ₃ 5:O	benzo[a]fluorene-11-one	A	268	4.8	03	4896
			372	3.5		
	benzo[b]fluorene-11-one	A	284	4.9	03	4897
			339	3.6		
			415	3.0		
	benzo[c]fluorene-7-one	A	291	4.7	03	4898
			336	3.3		
			425	3.0		
C ₂ -6 ₃ 5:O	5,6-trimethylenebenzo[b]fluorene-11-one	A	292	4.8	F49	4899
			352	3.7		
			435	3.4		
0:6 ₃ 5:O	fluoranthene-2,3-quinone	D	261	4.7	F49	4900
6 ₄	triphenylene	A	257	5.2	F49	4901
	chrysene	A	220	4.6	C58	4902
			267	5.1		
			319	4.2		
			360	3.0		
	benzo[c]phenanthrene	A	218	4.7	C58	4903
			281	4.9		
			315	4.1		
			350	2.6		
	pyrene	A	241	4.9	C51	4904
			272	4.6		
			333.5	4.7		
	benz[a]anthracene	A	220	4.7	M23	4905
			286	5.1		
			340	3.9		
			384	2.9		

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
C-64	naphthacene	A	278 416 444 474	5.1 3.6 4.0 4.1	F49	4906
	1-methylchrysene	A	269 323 362	5.1 4.2 2.9	F49	4907
	2-methylchrysene	A	269 321 361	5.2 4.0 2.4	F49	4908
	3-methylchrysene	A	269 321 362	5.1 4.1 2.9	F49	4909
	4-methylchrysene	A	271 327 366	5.1 4.0 2.8	F49	4910
	5-methylchrysene	A	266 325 367	5.1 4.0 2.9	F49	4911
	6-methylchrysene	A	269 324 362	5.2 4.1 3.0	F49	4912
	1-methylbenzo[c]phenanthrene	A	222 287 320 362	4.5 4.7 4.0 2.5	F49	4913
	2-methylbenzo[c]phenanthrene	A	283 357 375	4.9 2.7 2.7	B17	4914
	3-methylbenzo[c]phenanthrene	A	283 356 373.5	4.9 2.5 2.3	B17	4915
	4-methylbenzo[c]phenanthrene	A	285.5 357.5 374.5	4.8 2.5 2.2	B17	4916
	5-methylbenzo[c]phenanthrene	A	220 283.5 356.5 374.5	4.6 4.9 2.6 2.4	F49	4917
	6-methylbenzo[c]phenanthrene	A	283.5 359 377	4.8 2.6 2.4	B17	4918

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	1-methylpyrene	A	242 274 343	5.0 4.8 4.7	F49	4919
	2-methylpyrene	A	243 274 336	5.0 4.6 4.7	F49	4920
	4-methylpyrene	A	241 274 336	4.9 4.7 4.6	F49	4921
	1-methylbenz[a]anthracene	A	287.5 341 387.5	4.9 3.9 3.2	J19	4922
	2-methylbenz[a]anthracene	A	226 291 342.5 388	4.6 4.9 3.9 3.2	B11	4923
	3-methylbenz[a]anthracene	A	224-30 289 343.5 385.5	4.5 4.9 3.8 2.7	B11	4924
	4-methylbenz[a]anthracene	A	293 344.5 388	5.0 3.9 3.0	B11	4925
	5-methylbenz[a]anthracene	A	224 291 340.5 388	4.6 5.0 3.9 3.1	B11	4926
	6-methylbenz[a]anthracene	A	224 288.5 342 385	4.6 5.0 3.8 3.2	J19	4927
	7-methylbenz[a]anthracene	A	222.5 291.5 354.5 389.5	4.5 5.0 3.9 3.1	J19	4928
	8-methylbenz[a]anthracene	A	225.5 289 346 386	4.5 4.9 3.9 3.1	J19	4929
	9-methylbenz[a]anthracene	A	224 289 343.5 385	4.5 4.9 3.8 2.5	B11	4930

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₂ -6 ₄	10-methylbenz[a]anthracene	A	224-50 288.5 340.5 387.5	4.5 5.0 3.8 3.2	B11	4931
	11-methylbenz[a]anthracene	A	232 290 346 386.5	4.6 4.0 3.9 3.1	J19	4932
	12-methylbenz[a]anthracene	A	223 290.5 351.5	4.4 4.9 3.9	J19	4933
	5-methylnaphthacene	A	277 449 480.5	5.4 3.9 4.0	C36	4934
	4,5-dimethylchrysene	A	274 330 345	5.1 4.3 4.3	J21	4935
	5,6-dimethylchrysene	A	220 274 322.5 333 374.5	4.6 5.0 4.1 4.1 2.8	J21	4936
	4,5-methylenechrysene	A	269 301 326.5 360	5.0 4.1 4.1 2.9	J21	4937
	(1-methylbenzo[c]phenanthr-4-yl)acetic acid	A	224 290 326	4.6 4.8 4.0	F49	4938
	5,8-dimethylbenzo[c]phenanthrene	A	221 286 321	4.6 4.9 4.0	F49	4939
	6,7-trimethylenebenzo[c]phenanthrene	A	287 301 321 383	4.8 4.2 4.0 3.1	C58	4940
	2,7-dimethylpyrene	A	246 277 338 378	5.0 4.7 4.7 3.0	F49	4941
	1,2-tetramethylenepyrene	A	247 280 346 378	4.9 4.6 4.6 3.2	K47n	4942

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	1,12-dimethylbenz[a]anthracene	A	278 287 341 387	4.9 4.9 3.9 3.1	C14	4943
	3-isopropyl-7-methylbenz[a]anthracene	A	294 353 390	5.0 3.9 2.6	J20	4944
	7,8-dimethylbenz[a]anthracene	A	294.5 358 392.5	4.9 4.0 3.2	J19	4945
	7,11-dimethylbenz[a]anthracene	A	295 356 391.5	5.0 4.0 3.1	J19	4946
	7,12-dimethylbenz[a]anthracene	A	296.5 364	4.9 4.9	J19	4947
	8,11-dimethylbenz[a]anthracene	A	292.5 352 386.5	4.9 3.9 3.1	J19	4948
	1,12-methylenebenz[a]anthracene	A	256.5 289 350.5 387	4.6 4.7 3.9 3.5	J19	4949
	cholanthrene	A	220 284 296 358	4.6 4.8 4.9 3.9	F49	4950
	8,9-trimethylenebenz[a]anthracene	A	225 293 352	4.6 4.0 3.8	F49	4951
	9,10-trimethylenebenz[a]anthracene	A	224 288 345 386	4.6 5.0 3.9 3.2	F49	4952
	1,6-dimethylnaphthacene	A	278 433 454	5.3 3.8 3.9	F26	4953
C ₃ -64	1,7,8-trimethylchrysene		274 315 329 367	5.1 4.2 4.2 2.7	R43	4954
	7-methyl-1,12-methylenebenz[a]anthracene	A	292 357.5	4.7 3.9	J20	4955

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₄ -6 ₄	3-methylcholanthrene	A	220 284 297 359	4.5 4.8 4.9 3.7	F25	4956
	11-methylcholanthrene	A	286 297.5 360	4.8 4.9 4.0	J20	4957
	1,2,7,8-tetramethylchrysene		275 335 369	5.1 4.1 2.9	D7n	4958
	1,2,2a,3,4,4a,5,6-octahydrocoronene	Hp	247 281 349 383	4.8 4.7 4.7 3.5	F49	4959
	3,11-dimethylcholanthrene	A	287 298 360.5	4.9 5.0 3.9	J20	4960
	5,11-dimethylcholanthrene	A	288 298.5 360	4.8 4.8 3.8	J20	4961
	1,10:3,4-di(trimethylene)pyrene	A	248 281.5 351.5 383	4.9 4.8 4.5 3.5	C36	4962
	1,2,5,6,9,10-hexahydrocoronene	A	273 302 344	5.0 4.4 3.2	F49	4963
	1-aminopyrene	A	242 284.5 ~362.5	4.6 4.4 4.2	J25	4964
		*1	241.5 274 339	4.9 4.6 4.6	J25	4965
N-6 ₄	2-aminopyrene	A	266 338.5 ~400	4.8 4.5 3.2	J25	4966
	5-aminobenz[a]anthracene	A	292.5 365	4.5 3.9	J20	4967
		*1	289.5 344	4.9 3.8	J20	4968

*1 2N HCl/50% A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
0-6 ₄	7-aminobenz[a]anthracene	A	259.5	4.5	J20	4969
			302.5	4.6		
			405	3.9		
		H	259.5	4.5	J20	4970
			302.5	4.7		
			383	3.9		
		*1	289.5	4.8	J20	4971
			351.5	3.9		
			370	3.7		
	8-aminobenz[a]anthracene	A	267	4.9	J25	4972
			395	3.9		
		*1	289.5	4.9	J25	4973
	7-acetamidobenz[a]anthracene	A	347	3.8	B8	4974
			387	3.0		
			291	5.0		
0-6 ₄	6-hydroxychrysene	A	351	3.9	F49	4975
			388	3.1		
			225	4.6		
	1-hydroxypyrene	A	272	5.0	J25	4976
			322-32	4.0		
			373	3.5		
	2-hydroxypyrene	*3	241	4.8	F49	4978
			278	4.5		
			348	4.3		
	1-hydroxypyrene	A	386	4.0	J25	4977
			245	4.6		
			287	4.4		
	2-hydroxypyrene	*4	~408	4.3	F49	4979
			250	4.8		
			337	4.7		
0-6 ₄	2-hydroxypyrene	*5	384	3.4	F49	4980
			273	4.3		
			344	4.5		
	2-hydroxypyrene	*5	~408	3.5	F49	4980
			275	4.6		

*1 2N HCl/50% A *2 0.5N NaOH/50% A *3 0.01N HCl/50% A *4 1N KOH/50% A
 *5 2N NaOH/50% A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	4-hydroxypyrene	A	241 281 343 378	4.7 4.3 4.2 3.5	F49	4981
	5-hydroxybenz[a]anthracene	A	288 338 407	4.7 3.9 3.3	J20	4982
		*1	296 368.5 432.5	4.6 4.0 3.5	J25	4983
	1-methoxypyrene	A	241 278 346 382	4.8 4.6 4.4 4.0	J25	4984
	4-methoxypyrene	cH	244 280 346 373	4.8 4.5 4.4 3.5	F49	4985
	5-methoxybenz[a]anthracene	A	285 334.5 395	4.8 3.9 3.3	J20	4986
	7-methoxybenz[a]anthracene	A	280 291 336 353 371	4.9 5.0 3.8 3.9 3.8	J25	4987
	12-methoxybenz[a]anthracene	A	288 352 389	4.9 3.9 3.2	B8	4988
	7-acetoxybenz[a]anthracene	A	279 290 333 350 387	4.9 5.0 3.9 4.0 2.9	B8	4989
	12-acetoxybenz[a]anthracene	A	277 287 334 344 389	4.9 4.9 3.8 3.9 3.2	B8	4990
O ₂ -64	7,12-dimethoxybenz[a]anthracene	A	281 293 362.5	4.9 4.9 3.8	B8	4991

*1 1N NaOH/50% A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
OC-6 ₄	7,12-diacetoxybenz[a]anthracene	A	279	4.9	B8	4992
			289	4.9		
			339	3.9		
			355.5	3.9		
			368	3.9		
			391	3.2		
	5-methoxy-10-methylbenz[a]anthracene	A	278	4.7	J20	4993
			290	4.8		
			343	3.9		
			360	3.9		
			402	3.4		
	8-methoxy-7-methylbenz[a]anthracene	A	287.5	4.7	F49	4994
			298	4.7		
			~367	3.9		
	12-methoxy-7-methylbenz[a]anthracene	A	282	4.9	J25	4995
			293	4.9		
			361	4.0		
OC ₂ -6 ₄	1-acetoxy-4-methylbenzo[c]phenanthrene	A	221	4.6	D25	4996
			277	4.6		
			286	4.8		
	2-acetoxy-4-methylbenzo[c]phenanthrene	A	220	4.6	D25	4997
			278	4.7		
			286	4.8		
			317	4.1		
	7-acetoxy-12-methylbenz[a]anthracene	A	282	4.9	B8	4998
			293	4.9		
			359	4.0		
	9-methoxy-3-methylcholanthrene	A	294	4.9	J25	4999
			348	3.8		
			401	3.6		
S-6 ₄	7-thiocyanatobenz[a]anthracene	D	296.5	4.9	J22	5000
			362.5	3.9		
	12-thiocyanatobenz[a]anthracene	D	302	4.9	J22	5001
			379.5	4.2		
			405	4.2		
	chrysene-6-sulfonic acid	D	276	5.0	F49	5002
			~321	4.1		
			~333	4.1		
	7-methyl-12-thiocyanatobenz[a]anthracene	D	275	4.7	J22	5003
			311	4.7		
			415.5	4.2		

(6₄)(6₄)(N:C)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
Cl-6 ₄	1-chloropyrene	H	242	5.0	F39n	5004
			275	4.7		
			343	4.8		
ClC-6 ₄	9-chlorobenz[a]anthracene	cH	292	5.1	F49	5005
			331	3.9		
			347	3.9		
			385	2.9		
ClC-6 ₄	9-chloro-7-methylbenz[a]anthracene	A	295	5.1	F49	5006
			356	3.9		
	10-chloro-7-methylbenz[a]anthracene	A	224	4.5	F49	5007
			294	5.0		
			349	3.9		
ClC ₃ -6 ₄	9-chloro-5-methylcholanthrene	A	296	4.9	J25	5008
			362	3.8		
			398	3.6		
Br-6 ₄	7-bromobenz[a]anthracene	A	292.5	5.2	B8	5009
			355.5	4.0		
			391	4.0		
BrC-6 ₄	7-bromo-12-methylbenz[a]anthracene	A	296	4.9	B8	5010
			364	4.0		
BrC ₂ -6 ₄	8-bromo-7,12-dimethylbenz[a]anthracene	A	300	4.9	J25	5011
			372	4.0		
6 ₄ -C:C C	6-isopropenylchrysene	A	222	4.5	J23	5012
			269.5	5.1		
			310	4.1		
			323.5	4.1		
			363	2.9		
C-6 ₄ -C:C-C	7,8-dihydrobenzo[a]pyrene	A	247	4.6	K47n	5013
			254	4.6		
			280	4.4		
			292	4.5		
			347	4.5		
			364	4.6		
C-6 ₄ -C:C-C C	7-methyl-9,10-dihydrobenzo[a]pyrene	A	281	4.8	F49	5014
			345	4.5		
			378	3.0		
			399	2.9		
6 ₄ -C:N	1-cyanopyrene	A	244	4.8	F39n	5015
			279	4.7		
			351	4.7		
			382	4.0		

(6₄)(N:C)(6₄)(O:C)

system	compound	solv.	λ _{max.}	logε	ref.	no.
C-6 ₄ -C:N	7-cyanobenz[a]anthracene	A	295	4.8	B8	5016
			375	3.9		
			396	3.8		
C-6 ₄ -C:N	7-cyano-12-methylbenz[a]anthracene	A	296	4.8	B8	5017
			378	4.0		
C-6 ₄ -C:N	8-cyano-7-methylbenz[a]anthracene	A	226	4.5	F49	5018
			240	4.5		
			288	4.8		
C-6 ₄ -C:N	10-cyano-7-methylbenz[a]anthracene	A	300	4.9	F49	5019
			380	3.9		
			400	3.8		
C ₃ -6 ₄ -C:N	9-cyano-3-methylcholanthrene	A	288	4.9	J25	5020
			298	5.0		
			366	3.9		
C ₃ -6 ₄ -C:N	11-cyano-3-methylcholanthrene	A	262	4.6	J25	5021
			308	4.9		
			368	3.8		
6 ₄ -C:O	1-pyrenecarboxaldehyde	Hp	249	4.5	J25	5022
			310.5	5.0		
			356	3.9		
6 ₄ -C:O	1-pyrenecarboxaldehyde	Hp	425	3.7	J25	5022
			233	4.6		
			287	4.6		
6 ₄ -C:O	1-pyrenecarboxaldehyde	Hp	363	4.4	J25	5022
			372	4.4		
			391	4.4		
6 ₄ -C:O	benz[a]anthracene-7-carboxaldehyde	A	249	4.6	J25	5023
			303	4.7		
			403.5	3.9		
C-6 ₄ -C:O	12-methylbenz[a]anthracene-7-carboxaldehyde	A	294.5	4.7	B8	5024
			386	4.0		
6 ₄ -C:O	6-acetylchrysene	A	225	4.6	J23	5025
			270	4.8		
			335	4.1		
C-6 ₄ -C:O	3-(1-carboxylpyrene)propionic acid	A	233	4.6	J25	5026
			242	4.6		
			281	4.4		
C-6 ₄ -C:O	7,8,9,10-tetrahydro-7-oxobenzo[a]pyrene	A	352	4.3	F49	5027
			277	4.8		
			327	4.3		
C-6 ₄ -C:O	7,8,9,10-tetrahydro-7-oxobenzo[a]pyrene	A	343	4.6	F49	5027
			415	3.2		


(6₄)(0:C)(6₄)(0:C)(0:C)
0

system	compound	solv.	λ _{max.}	logε	ref.	no.
C ₂ -6 ₄ -C:O C	3-methyl-1-oxocholanthrene	A	234 308 386	4.6 4.7 4.0	J25	5028
6 ₄ -C:O N	N-(benz[a]anthracene-5-carbonyl)glycine	8.3	292 343.5	4.7 3.9	J20	5029
	N-(benz[a]anthracene-7-carbonyl)glycine	8.0	290 352	4.9 3.8	J20	5030
6 ₄ -C:O O	5-chrysenecarboxylic acid	*1	220 270 311 350	4.5 5.0 4.1 3.0	J25	5031
	benzo[c]phenanthrene-6-carboxylic acid	A	221 285 368 385	4.6 4.8 2.9 2.9	F49	5032
	1-pyrenecarboxylic acid	C	283 352 385	4.5 4.5 4.1	F39u	5033
	2-pyrenecarboxylic acid	C	265 339 395	4.9 4.6 3.3	F39u	5034
	benz[a]anthracene-7-carboxylic acid	A	291 349 387	4.9 3.9 3.1	B8	5035
C ₂ -6 ₄ -C:O O	7-cholanthrenecarboxylic acid	H	265 285 297.5 362.5	4.7 4.7 4.8 3.9	F49	5036
		*2	264 271 287 296 362	4.6 4.6 4.7 4.7 3.9	J25	5037
		*3	266 286 298 363	4.6 4.8 4.8 3.9	J25	5038
6 ₄ >C:O O: C O	benz[a]anthr-7-ylglyoxalic acid	A	296 351 390	4.8 3.8 3.5	B8	5039

*1 0.05N HCl/A *2 0.01N HCl/A *3 0.5N NaOH/50% A

(6₄)(0:N)
0(6₄)(6)₄

system	compound	solv.	λ _{max.}	logε	ref.	no.
6 ₄ -N:O O	6-nitrochrysene	A	260 363-71	4.7 3.9	F49	5040
	7-nitrobenz[a]anthracene	A	288 350 387.5	4.7 3.8 3.5	B8	5041
6 ₄ -N:C:O	5-isocyanatobenz[a]anthracene	H	286.5 297 346	4.9 4.9 4.9	J20	5042
	7-isocyanatobenz[a]anthracene	H	294 361 380.5	5.0 4.0 4.0	J20	5043
6 ₄ -6	12-phenylbenz[a]anthracene	A	290 345 389	5.1 4.0 3.4	C60	5044
C-6 ₄ -6-C	8H-dibenzo[def,qr]chrysene	A	296 349 378 399	5.1 4.9 3.9 4.0	C49	5045
6-6 ₄ -6	7,12-diphenylbenz[a]anthracene	A	294.5 357	4.8 4.1	B8	5046
6 ₆ -6 ₄ -6	5,6,11-triphenylnaphthacene	B	295 445 473 505	5.0 3.6 3.9 4.1	B12	5047
C-6 ₆ -6 ₄ -6-C	5,6,11-tri(p-tolyl)naphthacene	B	296 445 473 506	5.1 3.8 4.1 4.1	B12	5048
6 ₆ -6 ₄ -6 O	5-phenoxy-6,11,12-triphenylnaphthacene	B	299 460 490 525	5.0 3.8 4.1 4.1	B12	5049
6 ₆ -6 ₄ -6 ₆	5,6,11,12-tetraphenylnaphthacene; rubrene	B	303 465 495 530	5.1 3.8 4.1 4.1	B12	5050
C-6 ₆ -6 ₄ -6 ₆ -C C-6	5,6,11,12-tetra(p-tolyl)naphthacene	B	304 464 494 530	5.1 3.8 4.1 4.1	B12	5051

system	compound	solv.	λ_{max}	log ϵ	ref.	no.
64:0	7-oxobenz[de]anthracene; benzanthrone	A	230	4.5	F49	5052
			253	4.3		
			307	3.9		
			393	4.0		
0:64:0	1,4-chrysenedione	A	248	4.6	B1g	5053
			325	4.2		
			404-30	3.6		
	5,6-chrysenedione	D	250	4.5	F49	5054
			386	3.8		
	benz[a]anthracene-7,12-dione	D	279-90	4.5	F49	5055
			328-40	3.6		
			391	3.4		
7665	cyclohepta[fg]acenaphthylene; acepleiadylene	M	211	4.6	A8g	5056
			250	4.4		
			315	4.6		
			330	4.6		
			510	3.6		
			554	3.4		
7665-N:O 	nitrocyclohepta[fg]acenaphthylene; nitroacepleiadylene	M	250	4.3	A8g	5057
			312	4.4		
			324	4.3		
			510	3.4		
			556	3.2		
763	benzo[a]naphtho[1,8a,8-cd]cycloheptene; pleiadiene	M	208	4.6	A8g	5058
			230	4.4		
			248	4.4		
			342	3.9		
			424	2.6		
			449	2.6		
			480	2.6		

PART 31. OTHER CARBOAROMATIC CHROMOPHORES

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
6₄5	benzo[j]fluoranthene	A	242	4.7	06	5059
			318	4.4		
			365	3.9		
			383	4.0		
	benzo[k]fluoranthene	A	240	4.8	06	5060
			308	4.8		
			380	4.1		
			400	4.2		
	benz[a]aceanthrylene; benzo[a]fluoranthene	A	256	4.9	C36	5061
			308	3.9		
			363	3.7		
			428	3.9		
	benz[a]acephenanthrylene; benzo[b]fluoranthene	A	256	4.6	C36	5062
			301	4.6		
			338	4.0		
			350	4.0		
			369	3.9		
N:C-6₄5-C:N	7,12-dicyanobenzo[k]fluoranthene	B	332 373	4.9 4.0	F49	5063
O:C-6₄5-C:O N N	benzo[k]fluoranthene-7,12-dicarbonamide	D	245-50 311 382 403	4.7 4.7 4.1 4.1	F49	5064
6₄5:O	dibenzo[b,h]fluoren-13-one	A	236	4.4	B13	5065
			243	4.4		
			267	4.4		
			297	5.0		
			442	2.9		
6₅	dibenzo[c,g]phenanthrene	A	226	5.2	C58	5066
			267	4.7		
			310	4.5		
			376	2.8		
	benzo[c]chrysene	A	292.5	4.9	C58	5067
			306	4.6		
			349	2.8		
	benzo[g]chrysene	A	286	4.8	C58	5068
			321	4.0		
			352	3.9		
	picene	C	286.5	5.0	C58	5069
			328.5	4.4		
			376	3.0		

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	benzo[b]triphenylene	B	280 290 336 375	4.8 4.9 4.0 2.6	C57	5070
	dibenz[a,h]anthracene	A	222 296 348 393	4.8 5.2 4.2 3.1	M23	5071
	dibenz[a,j]anthracene	B	304 324 338	5.1 4.3 4.2	C36	5072
	benzo[a]pyrene	A	225 265.5 284 296.5 384.5 403	4.4 4.7 4.7 4.7 4.4 3.6	M24	5073
	benzo[e]pyrene	A	237 289 331.5 366	4.4 4.7 4.5 2.9	C46	5074
	perylene	A	252 408 434	4.6 4.8 4.5	F49	5075
	naphth[1,2-a]anthracene	A	248 308 372 401	4.6 4.9 3.8 3.1	C58	5076
	naphth[2,1-a]anthracene	B	291 349 367 385	5.1 4.0 4.0 3.8	C58	5077
	pentaphene	A	245 257.5	5.0 5.0	C61	5078
		B	314.5 345 356 399 423.5	5.0 4.5 4.5 3.0 3.0		
	benzo[a]naphthacene	B	306 319 425 452.5	5.1 5.0 4.0 4.0	C39	5079

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
C-65	pentacene	B	310	5.5	C40	5080
			495	3.6		
			533.5	3.9		
			575.5	4.1		
	6-methylbenzo[a]pyrene	A	227	4.5	J25	5081
			267	4.7		
			288	4.7		
			300	4.8		
			373	4.4		
			394	4.4		
	11-methylbenzo[a]pyrene	A	254	4.7	J17	5082
			264	4.7		
			287	4.6		
			299	4.7		
			370	4.3		
			389	4.4		
C ₂ -65	6-methylpentacene	*1	496		C50g	5083
			536			
			579	2.6		
	6H-naphtho[3,4,4a,5,6-defg]naphthacene	A	300.5	4.9	C49	5084
			369	3.9		
			390	3.9		
	7,14-dimethyldibenz[a,h]anthracene	A	224	4.7	F49	5085
			296	4.9		
			308	5.0		
			353	4.2		
			370	4.2		
C ₄ -65	1,14-methylenedibenz[a,h]anthracene	A	290	5.0	J25	5086
			300	5.1		
			340	4.2		
			356	4.2		
	4,5:11,12-di(trimethylene)dibenz[a,h]-anthracene	A	305.5	4.7	C36	5087
			311.5	4.8		
			330	4.3		
			347	4.2		
N-65	6-aminobenzo[a]pyrene	*2	266	4.6	J25	5088
			289	4.6		
			300	4.7		
			372	4.4		
			393	4.4		

*1 1-methylnaphthalene *2 1.2N HCl/90% A

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
0-6 ₅	11-hydroxybenzo[a]pyrene	A	269	4.8	J25	5089
			289.5	4.5		
			301.5	4.5		
			365	4.2		
			384	4.4		
			398	4.3		
			422.5	4.2		
	7-methoxybenzo[a]pyrene	*1	276	4.8	J25	5090
			394.5	4.1		
			452.5	4.0		
6 ₅ -C:N	6--cyanobenzo[a]pyrene	D	233	4.5	F49	5091
			267	4.6		
			301	4.7		
			373	4.4		
			394	4.4		
6 ₅ -C:O	6-formylbenzo[a]pyrene	A	256	4.6	J25	5093
			267	4.6		
			299	4.5		
			310	4.5		
			~421	4.3		
6 ₅ -C:O C	1-acetylbenzo[a]pyrene	A	238	4.4	J25	5094
			260	4.7		
			300	4.4		
			396	4.4		
			412	4.4		
6 ₅ -N:C:O	7-isocyanatodibenz[a,h]anthracene	H	291.5	5.1	J25	5095
			303.5	5.2		
			348	4.2		
			366.5	4.2		
	7-isocyanatobenzo[a]pyrene	H	257	4.7	J25	5096
			268	4.7		
			304.5	4.8		
			383	4.4		
			404.5	4.5		
C-6-6 ₅ -6-C C ₂	5,15-dihydrotetrabenzo[a,de,1,op]-pentacene	*2	315	4.7	C36	5097
			326	4.8		
			343	4.7		
			391	4.7		
			405	4.6		
			415	4.7		

*1 1N NaOH/50% A *2 trichlorobenzene

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6 ₅ :0	benzo[c,d]pyren-6-one	A	247	4.6	C49	5098
			305	4.5		
			406	4.2		
		B	307	4.6	C59	5099
			395	4.1		
	naphth[1,2,3-de]anthracen-8-one; naphth[1,2,3-de]anthrone	A	241	4.6	C46	5100
			303	4.3		
			318	4.1		
			404	4.1		
	naphth[3,2,1-de]anthracen-5-one; naphth[3,2,1-de]anthrone; coeranthrone	A	250	4.7	C59	5101
			284	4.6		
			393	3.5		
			497	4.0		
	benzo[fg]naphthacen-5-one; dibenz[b,de]anthrone	A	257	4.5	C46	5102
			303	4.1		
			327	4.0		
			400	4.0		
C ₂ -6 ₅ :0	1,2,3,8-tetrahydrodibenzo[cd,mn]pyren-8-one; 1,2,3,8-tetrahydrotriangulen-8-one	B	311	4.5	C59	5103
			393	3.9		
			414	4.0		
			440	4.0		
	4-acetoxy-1,2,3,8-tetrahydrodibenzo-[cd,mn]pyren-8-one; 4-acetoxy-1,2,3,8-tetrahydrotriangulen-8-one	B	301	4.5	C59	5104
			309	4.4		
			315	4.5		
			394	4.0		
			414	4.0		
			439.5	4.0		
0:6 ₅ :0	dibenz[a,h]anthracene-7,14-dione; dibenz[a,h]anthraquinone	A	296	4.8	B102n	5105
			334	3.8		
			~390	3.8		
6 ₄ 5 ₂	indeno[1,2,3-cd]fluoranthene	A	253	4.6	C36	5106
			262.5	4.6		
			281	4.7		
			292.5	5.1		
			387	4.4		
			410	4.6		
6 ₅ 5	naphtho[2,3-j]fluoranthene	A	255	4.8	C36	5107
			269	4.6		
			407.5	4.0		
			452	3.3		
			482	3.3		
	naphtho[2,3-k]fluoranthene	A	256	4.8	C36	5108
			268	4.8		
			334	5.1		
			413	4.2		
			438	4.2		

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6 ₆	benzo[a]perylene	PE	277.5	4.8	C36	5109
			311	3.8		
			514	4.7		
	benzo[ghi]perylene	A	227	4.6	B144	5110
			296	4.6		
			308	4.8		
			374	4.3		
			395	4.3		
	benzo[ghi]perylene	B	292	4.6	C38	5111
			303	4.8		
			367	4.9		
			387.5	5.0		
	naphtho[1,2-b]triphenylene	B	304	5.1	C36	5112
			368	3.1		
			388	3.0		
	naphtho[1,2-b]chrysene	B	309.5	5.3	C45	5113
			353	4.3		
			400.5	3.3		
	naphtho[1,2,3,4-def]chrysene	B	306.5	4.8	C46	5114
			378	4.3		
	benzo[ghi]pycene	A	242	5.0	C41	5115
		B	297	4.8	C41	5116
			375	4.7		
			397	4.9		
	benzo[c]pentaphene	B	433	3.1	C42	5117
			324	5.1		
			368	4.5		
	dibenzo[b,def]chrysene	A	423	3.1	C41	5118
			256	4.7		
			264	4.7		
	dibenzo[b,def]chrysene	B	313.5	5.2	C41	5119
			424	4.4		
			451	4.6		
	dibenzo[b,k]chrysene	B	307	5.4	C37	5120
			396	4.1		
			420	4.0		
	dibenzo[def,p]chrysene	A	261	5.2	C60	5121
			330.5	4.4		
			401	4.1		
	dibenzo[def,p]chrysene	B	291	4.7	C41	5122
			332	4.4		
			402	4.1		

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	dibenzo[def,mno]chrysene	A	231	5.0	C43	5123
		B	310 408 433	4.9 4.5 4.9	C43	5124
	dibenzo[a,c]naphthacene	B	318 414 441.5	5.2 3.8 3.7	C47	5125
	dibenzo[a,j]naphthacene	B	325.5 388 411 437.5	5.4 3.9 4.0 3.9	C45	5126
		D	232 258 323.5 388 415 440	4.6 4.6 5.6 3.9 4.0 3.8	N9	5127
	dibenzo[a,l]naphthacene	D	234 326 386 412	4.7 5.3 3.9 4.0	N9	5128
	dibenzo[de,mn]naphthacene; zethrene	B	342 461 622	4.3 5.1 3.1	C36	5129
	dibenzo[de,qr]naphthacene	B	309 321 328 386 407.5	4.7 4.8 4.8 3.2 3.3	C52	5130
	dibenzo[fg,op]naphthacene	B	289 310 376.5	4.7 4.3 3.8	C46	5131
	naphtho[1,8a,8,7-cde]naphthacene	A	246.5	4.8	C41	5132
		B	297 335 458	5.0 4.8 4.4	C41	5133
	hexaphene	B	358 391 414	5.2 4.0 4.0	C53	5134
	benzo[a]pentacene	B	291 332 511 551	4.8 5.1 3.9 4.1	C47	5135

(66:0)

(67)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
66:0	naphtho[2,1,8a,8,7-defg]naphthacen-6-one	A	277 446	3.9 3.5	C49	5136
0:66:0	dibenzo[cd,mn]pyren-4,8-dione	B	360 498	3.7 4.1	C50	5137
6552	rubicene	A	\sim 228 250 295 \sim 492	4.8 4.8 4.6 4.0	F49	5138
67	dibenzo[c,m]pentaphene	B	326 423	5.2 3.1	C42	5139
	dibenzo[h,rst]pentaphene	B	295 382	4.9 4.1	C52	5140
	dibenzo[b,n]picene	B	293 326	4.7 4.6	C56	5141
		*1	345 404 428	4.6 3.3 3.3	C56	5142
	dibenzo[a,j]perylene	M	245 390 371 546	4.9 4.7 3.2 4.5	C50	5143
		B	371 558		C50	5144
	dibenzo[a,n]perylene	B	285 341 502.5	4.7 4.2 4.4	C50	5145
	dibenzo[a,o]perylene	B	300 371 558	4.5 3.9 4.1	C36	5146
	dibenzo[b,pqr]perylene	B	309.5 377.5	4.9 4.6	C49	5147
	dibenzo[cd,lm]perylene	A	277 323.5 436.5	5.2	C45u	5148
		B	326 443.5	4.7 5.1	C45u	5149
	trinaphthylene	B	286 300 315	4.9 5.0 4.8	C36	5150

*1 1-methylnaphthalene

(67)

(68)

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	coronene		305 341 411	5.4 4.7 2.6	P19	5151
	naphtho[1,2,3,4-rst]pentaphene	A	260 337.5 393	5.0 5.0 4.8	C36	5152
	naphtho[2,3-c]pentaphene	B	287.5 338 436	4.4 5.2 3.2	C48	5153
	anthra[9,9a,1,2-cde]naphthacene	B	325.5 516	5.2 4.2	G34	5154
	heptaphene	B	283.5 293.5	5.0 5.0	C56	5155
		*1	391	5.1	C56	5156
	dibenzo[fg,ij]pentaphene	B	302 406 433	4.7 4.7 4.7	F49	5157
	dibenzo[a,c]pentacene	B	334 500.5 538.5	5.2 4.0 4.0	C55	5158
	dibenzo[a,1]pentacene	*2	353 493	5.5 3.8	C45g	5159
	dibenzo[fg,qr]pentacene	B	303.5 408 433.5	4.8 4.7 4.7	C38	5160
	heptacene	*2	380.5 594 657 736 836	5.5 3.4 3.6 3.9 4.1	C44	5161
68	tribenzo[de,kl,rst]pentaphene	B	301 352 365 483 516	4.6 3.9 3.9 4.6 4.7	C46z	5162
	phenanthro[1,10a,10,9,8a,8-fghij]- perylene	B	300.5 399 424 603 662.5	4.7 4.1 4.1 4.3 4.7	C50	5163

*1 trichlorobenzene *2 1-methylnaphthalene

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
C ₂ -68	pyranthrene	*1	509 569	4.9 4.2	B130	5164
		B	304 354 462	4.8 4.6 5.1	C45n	5165
	benzo[j]heptaphene	*2	322 385 485	5.1 4.8 3.1	C53	5166
		B	347 452 513		C51	5167
		*2	349 456 515	4.6 5.1 3.3	C51	5168
	naphthaceno[4,4a,5,5a,6,6a,7,8-cdefghi]- naphthacene	B	298 345 468 589	4.1 5.1 3.4 4.9	C45n	5169
		B	576		C51	5170
		*3	353 582	5.3 4.0	C51	5171
	benzo[fg]naphtho[2,1,8a,8,7-qrst]- pentacene	B	315.5 329 402	4.9 4.9 4.7	C50	5172
		B	578 627	4.2 4.5	B130	5173
		*1	522 576	4.9 4.2	B130	5174
	2,13-dimethylphenanthro[1,10a,10,9,8a,8- fghij]perylene	B	609 663	4.1 4.5	B130	5175
		*1	534 580	4.8 4.2	B130	5176
		B	614 669	4.2 4.6	B130	5177
	3,12-dimethylphenanthro[1,10a,10,9,8a,8- fghij]perylene	*1	507 578	5.0 4.3	B130	5178

*1 conc. H₂SO₄ *2 trichlorobenzene *3 1-methylnaphthalene

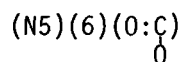
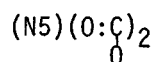
system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
O ₂ -68	4,11-diacetoxyphenanthro[1,10a,10,9,8a,8-fghij]perylene	B	624 678	4.2 4.6	B130	5179
O ₂ C ₂ -68	4,11-diacetoxy-1,14-dimethylphenanthro[1,10a,10,9,8a,8-fghij]perylene	B	593 644	4.1 4.4	B130	5180
	4,11-diacetoxy-2,13-dimethylphenanthro[1,10a,10,9,8a,8-fghij]perylene	B	626 680	4.2 4.6	B130	5181
6752	diindeno[1,2,3-cd:1,2,3-lm]perylene; periflanthene	B	297 498 537	4.5 4.7 4.8	C36	5182
69	anthra[9,9a,1,2-cde]benzo[rst]pentaphene; violanthrene	B	327.5 458 492	4.8 4.6 4.9	C45u	5183
		*1	464 498		C45u	5184
	benzo[rst]phenanthro[9,8a,8,7-cde]- pentaphene; isoviolanthrene	B	515		C45u	5185
		*1	364 523	5.0 4.9	C45u	5186
	tetrabenzo[a,cd,j,lm]perylene	B	348 445	5.1 4.9	C45x	5187
	tetrabenzo[de,h,kl,rst]pentaphene	B	296 643	4.6 4.6	C45x	5188
	dibenzo[bc,ef]coronene	B	320.5 345 535.5	4.8 4.7 4.7	C50	5189
610	ovalene	B	345 452.5 458.5		C50	5190
		*1	349 456 460	5.3 4.7 4.7	C50	5191
6952	dibenzo[a,j]diindeno[1,2,3-cd:1,2,3-lm]- perylene	B	294 312 324 448	4.5 4.5 4.5 4.5	C36	5192
611	dinaphtho[abc,jkl]coronene	C	344 415 430 450	4.8 4.1 4.1 4.1	F51h	5193

*1 1-methylnaphthalene

PART 32. (N5)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N5	pyrrole	H	210 340	4.2 2.5	M30	5194
C-N5	1-ethylpyrrole	iO	216	3.9	F49	5195
C ₂ -N5	2,5-dimethylpyrrole	iO	225	3.7	F49	5196
	3-ethyl-4-methylpyrrole	A	\sim 203	3.8	C89	5197
C ₃ -N5	3-ethyl-2,4-dimethylpyrrole	A	\sim 200	3.9	C89	5198
		*1	231 261	3.3 3.6	C89	5199
OC ₂ -N5	3-acetoxy-2,4-dimethylpyrrole	A	251	4.0	C89	5200
OC ₃ -N5	2-acetoxy-4-ethyl-3,4-dimethylpyrrole	A	308	4.3	C89	5201
C ₂ -N5-C(=O)O	4-ethyl-3-methylpyrrole-2-carboxylic acid	A	270	4.2	C89	5202
	ethyl 4-ethyl-3-methylpyrrole-2-carboxylate	A	283.5	4.3	C89	5203
	ethyl 3,5-dimethylpyrrole-2-carboxylate	A	276	4.3	C89	5204
	ethyl 2,4-dimethylpyrrole-3-carboxylate	A	232 259	3.9 3.7	C89	5205
	ethyl 2,3-dimethylpyrrole-4-carboxylate	A	231.5 263.5	4.0 3.6	C89	5206
C ₃ -N5-C(=O)O	ethyl 1,2,4-trimethylpyrrole-3-carboxylate	A	239.5	4.0	G31	5207
	ethyl 1,2,5-trimethylpyrrole-3-carboxylate	A	233 265	4.0 3.9	G31	5208
	ethyl 2,4,5-trimethylpyrrole-3-carboxylate	A	232.5 270	4.0 3.7	C89	5209
OC-N5-C(=O)O	ethyl 4-acetoxy-2-methylpyrrole-3-carboxylate	A	223	4.3	D12	5210
O=C-N5-C(=O)O	ethyl 5-methylpyrrole-2,3-dicarboxylate	A	210 290	4.1 4.0	C89	5211
O=C-N5-C(=O)O	ethyl 4,5-dimethylpyrrole-2,3-dicarboxylate	A	213 293	3.9 4.0	C89	5212

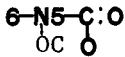
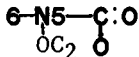
*1 hydrochloride in A



system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
	ethyl 3,5-dimethylpyrrole-2,4-dicarboxylate	A	221 273	4.4 4.2	C89	5213
	ethyl 3-ethyl-4-methylpyrrole-2,5-dicarboxylate	A	221 280	4.2 4.3	C89	5214
	ethyl 2,5-dimethylpyrrole-3,4-dicarboxylate	A	215 267.5	3.9 4.2	C89	5215
$O:C-N5-C:O$ $O \quad O_2C \quad O$	ethyl 1-ethyl-3,4-dihydroxypyrrole-2,5-dicarboxylate	*1	298	4.3	E1	5216
		*2	308 360	4.4 3.5	E1	5217
$O:C-N5-C:O$ $O \quad BrC \quad O$	ethyl 4-bromo-5-methylpyrrole-2,3-dicarboxylate	A	283	4.1	C89	5218
	ethyl 3-bromo-4-methylpyrrole-2,5-dicarboxylate	A	220 278	4.2 4.3	C89	5219
$O:C-N5-C:O$ $O \quad C_2$	ethyl 4-ethyl-5-formyl-3-methylpyrrole-2-carboxylate	A	231 303	4.2 4.3	C88	5220
$O:C-N5-C:O$ $O \quad C_2 \quad C$	ethyl 4-acetyl-3,5-dimethylpyrrole-2-carboxylate	A	235 283	4.4 4.1	C89	5221
$(N5)(O:C)_2(O:C)-C_2$ O	ethyl (5-ethoxycarbonyl-2,4-dimethyl-3-pyrrolyl)glyoxalic acid	A	243.5 292	4.4 3.9	C88	5222
N5-6	1-phenylpyrrole	A	253	3.8	A9	5223
	2-phenylpyrrole	A	290	4.1	E14	5224
C₂-N5-6	2,5-dimethyl-1-phenylpyrrole	A	208	4.2	H30	5225
O-N5-6	3-methoxy-1-phenylpyrrole	A	271.5	4.0	D12	5226
OC₂-N5-6	3-methoxy-2,5-dimethyl-1-phenylpyrrole	A	208	4.2	D12	5227
	3-benzoxo-2,5-dimethyl-1-phenylpyrrole	A	230	4.3	D12	5228
6-N5-6	2,5-diphenylpyrrole	A	230 323	4.1 4.4	K30	5229
6-N5-6 C	1-methyl-2,5-diphenylpyrrole	A	231 307	3.9 4.3	K30	5230
6-N5-6 6	1,2,5-triphenylpyrrole	A	301	4.3	K30	5231
6-N5-C:O $O \quad O$	4-hydroxy-1-phenylpyrrole-3-carboxylic acid	A	243	4.2	D12	5232

*1 HCl/M *2 conc. H₂SO₄

(N5)(6)(0:C)
0(N5)(6)(0:C)
0

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	4-methoxy-1-phenylpyrrole-3-carboxylic acid	A	241	4.2	D12	5233
	ethyl 4-hydroxy-1-phenylpyrrole-3-carboxylate	A	246 255	4.3 4.3	D12	5234
	methyl 4-acetoxy-2-methyl-1-phenylpyrrole-3-carboxylate	A	236	4.3	D12	5235
	4-methoxy-2,5-dimethyl-1-phenylpyrrole-3-carboxylic acid	A	238	4.2	D12	5236
	4-acetoxy-2,5-dimethyl-1-phenylpyrrole-3-carboxylic acid	A	236	4.2	D12	5237

PART 33. (N6)- AND (N6:X)-CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N6	pyridine	A	257	3.4	M38	5238
		cH	251	3.3	H51n	5239
		H	248	3.3	F17n	5240
		W	256	3.4	J4u	5241
		*1	256	3.7	B146	5242
		*2	257	3.4	B146	5243
C-N6	1-cetylpyridinium chloride	M	260		S2g	5244
	2-methylpyridine; α -picoline	A	262	3.5	S67	5245
		iO	261.5	3.4	F49	5246
		*1	263	3.8	B146	5247
		*2	262	3.6	B146	5248
	3-methylpyridine; β -picoline	A	263	3.5	S67	5249
		iO	256.5 263	3.3 3.3	F49	5250
		*1	263	3.7	B146	5251
		*2	263	3.5	B146	5252
	4-methylpyridine; γ -picoline	A	256	3.3	S67	5253
		iO	251 256	3.3 3.3	F49	5254
		*1	253	3.7	B146	5255
		*2	255	3.3	B146	5256
	4-tert-butylpyridine	*1	262	3.7	B146	5257
		*2	255	3.3	B146	5258
C ₂ -N6	2,4-dimethylpyridine		260	3.3	F49	5259
	5-ethyl-2-methylpyridine	A	268	3.6	B18n	5260
	2,6-dimethylpyridine	iO	266	3.5	F49	5261

*1 0.1N HCl/W *2 0.1N NaOH/W

(N6)

(N6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C ₃ -N6		*1	269.5	3.9	B146	5262
		*2	266	3.7	B146	5263
	2,6-bis(trichloromethyl)pyridine	cH	265		S2g	5264
	3-ethyl-4-methylpyridine	A	260	3.5	P35u	5265
	3,5-dibutylpyridine	H	267		S2g	5266
	2,4,6-trimethylpyridine	iO	263	3.4	F49	5267
	2-aminopyridine	A	235 296	4.0 3.6	S65	5268
		*3	229 300	4.0 3.8	S65	5269
		*4	230 288	4.0 3.5	S65	5270
	3-aminopyridine	A	240 300	4.0 3.5	S65	5271
N-N6		*3	250 315	3.8 3.5	S65	5272
		*4	230 290	3.9 3.4	S65	5273
	4-aminopyridine	A	245	4.0	S65	5274
		*3	262	4.0	S65	5275
		*4	261	4.0	S65	5276
	2-(methylanino)pyridine	E	298	3.7	A24	5277
	2-(2-oxocyclohexylamino)pyridine		240 303	4.2 3.6	C9	5278
	2-(dimethylamino)pyridine	E	303	3.4	A24	5279
	4-(dimethylamino)pyridine	*5	263	4.4	A24	5280
	2-(benzenesulfonamido)pyridine	*6	226 288	4.0 4.0	V3	5281
		7.0	244 301	4.0 4.0	V3	5282

*1 0.1N HCl/W *2 0.1N NaOH/W *3 0.01N HCl/W *4 0.01N NaOH/W *5 D + W (72:28)
 *6 2N HCl/W

(N6)

(N6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		11.0	239 290	4.1 3.7	V3	5283
	2-sulfanilamidopyridine	*1	225 286	4.0 4.0	V3	5284
		2.5	243 260 300	4.1 4.1 4.0	V3	5285
		7.0	244 261 301	4.2 4.3 4.0	V3	5286
		11.0	246	4.3	V3	5287
	2-[(N-acetylsulfanil)amido]pyridine; N ⁴ -acetylsulfapyridine	A	265 321	4.4 3.6	S42	5288
	2-[(N-acetylsulfanil)methylamido]- pyridine; N ⁴ -acetyl-N ¹ -methylsulfa- pyridine	A	265	4.4	S42	5289
N ₂ -N6	2,6-diaminopyridine	M	246 312		S2g	5290
NC-N6	2-amino-3-methylpyridine	cH	288		S2g	5291
	2-amino-4-methylpyridine	M	236.5 291.5		S2g	5292
	2-amino-5-methylpyridine	M	235 305		S2g	5293
	2-amino-6-methylpyridine	M	235 297		S2g	5294
NC ₂ -N6	2-amino-4,6-dimethylpyridine	M	236 295		S2g	5295
O-N6	3-hydroxypyridine	M	278	3.6	S57	5296
		W	246 313	3.7 3.5	M31g	5297
		*2	222 283	3.5 3.8	M31g	5298
		*3	234 298	4.0 3,7	M31g	5299

*1 2N HCl/W *2 aqueous acid *3 aqueous alkali

(N6)

(N6)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	2-ethoxypyridine	M	272	3.7	S57	5300
	3-methoxypyridine	M	278	3.7	S57	5301
		*1	286	3.8	S57	5302
	4-methoxypyridine	M	218	3.9	R35	5303
		*2	240	4.1	R35	5304
OC-N6	3-hydroxy-6-methylpyridine	*3	293	3.8	M31g	5305
		*4	239 308	3.9 3.5	M31g	5306
OC ₃ -N6	3-hydroxy-4,5-bis(hydroxymethyl)-2-methylpyridine	W	254 324	3.6 3.9	M31g	5307
		*3	232 291	3.3 3.9	M31g	5308
		*4	245 310	3.8 3.8	M31g	5309
O ₂ C-N6	2,6-dimethoxy-4-methylpyridine	A	227 276.5	3.9 3.8	A18	5310
		*5	214 289	3.5 4.1	A18	5311
		8.9	221.5 276	3.7 3.8	A18	5312
	2,6-diacetoxy-4-methylpyridine	A	260	3.6	A18	5313
		*5	259	3.6	A18	5314
O ₂ C ₂ -N6	2,6-dimethoxy-3,4-dimethylpyridine	A	227.5 281	3.9 3.9	A18	5315
		*5	223 292	3.7 3.9	A18	5316
		8.9	223 280.5	3.8 3.8	A18	5317
	2,6-diacetoxy-3,4-dimethylpyridine	A	263	3.6	A18	5318
		*5	262.5	3.6	A18	5319
O ₃ C-N6	2,3,6-triacetoxy-4-methylpyridine	A	263 329	3.6 2.7	A18	5320

*1 0.1N HCl/M *2 HCl/M *3 aqueous acid *4 aqueous alkali *5 0.1N HCl/W

(N6)

(N6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		*1	262.5	3.6	A18	5321
O ₃ C ₂ -N6	2,3,6-triacetoxy-4,5-dimethylpyridine	A	266.5	3.7	A18	5322
O ₂ NC-N6	2,6-diacetoxy-3-(diacetylamino)-4-methylpyridine	A	264	3.6	A18	5323
		*1	263	3.6	A18	5324
O ₂ NC ₂ -N6	2,6-diacetoxy-3-(diacetylamino)-4,5-dimethylpyridine	A	267.5	3.6	A18	5325
		*1	267.5	3.6	A18	5326
O-N6	pyridine 1-oxide	A	265	4.1	H20	5327
		CCl ₄	281	4.0	H20	5328
		H	282	4.0	I13	5329
		W	255	4.1	H20	5330
		*2	217 257	3.7 3.5	J4u	5331
O-N6-C	3-methylpyridine 1-oxide	W	209 254	4.3 3.1	J4u	5332
		*2	220 263	3.6 3.6	J4u	5333
	4-methylpyridine 1-oxide	C	276.5	4.4	W30	5334
		M	264.5	4.1	W30	5335
		CCl ₄	288	4.5	W30	5336
		W	206 256	4.3 4.2	J4u	5337
		*3	267.5	4.3	W30	5338
		*2	226 254	3.9 3.4	J4u	5339
S-N6	4-mercaptopyridine	A	341	4.1	R35	5340
		H	235		R35	5341
		*4	282.5	4.2	R35	5342
		*5	282.5	4.2	R35	5343
	4-methylthiopyridine	A	260	4.2	R35	5344

*1 0.1N HCl/W *2 aqueous H₂SO₄ (1:1) *3 C+M (1 mole : 1 mole) *4 HCl/A *5 NH₃/A

(N6)

(N6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
F-N6	2-fluoropyridine	A	258	3.5	S67	5345
		*1	260	3.8	B145	5346
		*2	257	3.5	B145	5347
	3-fluoropyridine	A	262	3.5	B145	5348
		*1	262	3.8	B145	5349
		*2	262	3.5	B145	5350
Cl-N6	2-chloropyridine	Hp	269	3.4	S67	5351
		*3	213 269	3.7 3.9	B145	5352
		*4	263	3.6	B145	5353
	3-chloropyridine	Hp	264	3.4	S67	5354
		*3	213 270	3.7 3.7	B145	5355
		*4	213 266	3.8 3.5	B145	5356
ClN-N6	2-amino-5-chloropyridine	D	243 307		S2g	5357
ClO-N6	4-chloropyridine 1-oxide	A	265	4.1	H20	5358
		CCl ₄	289	4.2	H20	5359
		W	255	4.2	H20	5360
Br-N6	2-bromopyridine	A	270	3.5	S67	5361
		*3	223 272	3.6 3.9	B145	5362
		*4	265	3.6	B145	5363
	3-bromopyridine	A	266	3.3	S67	5364
		*3	223 274	3.6 3.6	B145	5365
		*4	217 268	3.7 3.4	B145	5366
BrO-N6	4-bromopyridine 1-oxide	A	278	4.2	H20	5367

*1 1.2N HCl/W *2 0.013N NaOH/W *3 aqueous acid *4 aqueous alkali

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
I-N6	2-iodopyridine	CCl ₄	291	4.2	H20	5368
		W	266	4.2	H20	5369
		*1	218 290	3.9 3.9	B145	5370
		*2	272	3.6	B145	5371
	3-iodopyridine	*1	218 291	3.9 3.5	B145	5372
		*2	228 273	3.8 3.4	B145	5373
N6-N6	2,2'-bipyridyl		233 280	4.0 4.1	K59	5374
			237 275	4.1 4.0	K59	5375
	2,4'-bipyridyl		238 273	4.0 4.0	K59	5376
			239 269	4.1 4.0	K59	5377
	3,4'-bipyridyl		241	4.1	K59	5378
	4,4'-bipyridyl		239	4.2	K59	5379
	copper(I) complex of 2,2'-bipyridyl		435	3.7	H78u	5380
	copper(II) complex of 2,2'-bipyridyl		298		Y0g	5381
	manganese(II) complex of 2,2'-bipyridyl		280		Y0g	5382
	iron(II) complex of 2,2'-bipyridyl (1:1)		522	3.9	H78u	5383
	iron(II) complex of 2,2'-bipyridyl (1:3)		533	4.0	B111n	5384
	cobalt(II) complex of 2,2'-bipyridyl		300		Y0g	5385
	nickel(II) complex of 2,2'-bipyridyl		302		Y0g	5386
	5,6-dihydro-4,7-phenanthroline	W	258 300	4.0 4.1	S34	5387
			526	3.2	H78u	5388
			529	3.9	H78u	5389

*1 aqueous acid *2 aqueous alkali

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	iron(II) complex of 5,5'-dimethyl-2,2'-bipyridyl		510	3.9	H78u	5390
	copper(I) complex of 6,6'-dimethyl-2,2'-bipyridyl		455	3.8	H78u	5391
C ₂ -N6-N6-C	2-benzyl-5,6-dihydro-4,7-phenanthroline	W	263 304	3.7 3.7	S34	5392
N6-C:C	2-vinylpyridine	A	235 278	4.1 3.7	M11u	5393
	3-vinylpyridine	A	238 278	4.1 3.4	S83	5394
		*1	218 246 287	4.1 3.9 3.5	S83	5395
N6-C:C-C	3-[4-(methylamino)-1-butenyl]pyridine; metanicotine	A	246 282	4.2 3.6	S83	5396
		*1	223 253 292	4.2 4.1 3.6	S83	5397
C-N6-C:C	5-ethyl-2-vinylpyridine	M	245 284		S2g	5398
N6-C:C-C N	3-(2-pyrrolin-2-yl)pyridine; myosine	A	234 266	4.1 3.6	S83	5399
		W	234 264	4.0 3.6	S83	5400
		*1	226 262	3.8 3.7	S83	5401
	3-(1-methyl-2-pyrrolin-2-yl)pyridine; N-methylmyosine	A	234 266	4.1 3.6	S83	5402
		W	234 264	4.0 3.6	S83	5403
		*1	226 262	3.8 3.7	S83	5404
	3-(1-benzoyl-2-pyrrolin-2-yl)pyridine; N-benzoylmyosine	A	224 271	4.1 4.0	S83	5405
		*1	252	4.1	S83	5406

*1 acid A

(N6)₂(C:C)(N6)(O:C)
O

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N6-C:C-N6	1,2-di-(4-pyridyl)ethylene	A	289 299	3.9 3.9	Y1	5407
N6-N:N-N6	2,2'-azopyridine	A	317 460	4.2 2.5	L7	5408
		cH	307 470	4.2 2.3	L7	5409
OC ₂ -N6-C:O	4-formyl-3-hydroxy-2,5-dimethylpyridine	1.9	258 295 341	3.2 3.8 3.3	H60	5410
		11.0	231 293-307 390	4.2 4.0 3.8	H60	5411
N6-C:O C	3-acetylpyridine	A	228 267	3.9 3.5	S83	5412
		*1	224 264	3.8 3.6	S83	5413
N6-C:C-C:O O C	4-hydroxy-4-(2-pyridyl)-3-buten-2-one; picolinoylacetone	A	225 313	3.8 4.1	S1	5414
	4-hydroxy-4-(3-pyridyl)-3-buten-2-one; nicotinoylacetone	A	236 307	3.8 4.1	S1	5415
N6-C:O N	3-pyridinecarbonamide; nicotinamide	A	262.5	3.4	B167	5416
		*2	261	3.7	W33	5417
		*3	261.5	3.5	W33	5418
N-N6-C:O N	2-amino-5-pyridinecarbonamide	M	267		S2g	5419
N6-C:O O	2-pyridinecarboxylic acid; picolinic acid	A	264	3.6	S68	5420
		W	265	3.8	S68	5421
		*2	265	3.9	E23	5422
		*3	265	3.6	E23	5423
	3-pyridinecarboxylic acid; nicotinic acid	A	263	3.5	S68	5424
		W	262	3.6	S68	5425
		*2	262	3.7	E23	5426
		*3	262	3.5	E23	5427

*1 acid A *2 acid *3 alkaline sol.

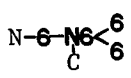
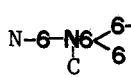
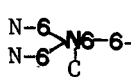
(N6)(O:C)
O(N6)(6)₃

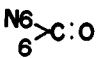
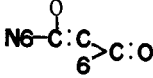
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	4-pyridinecarboxylic acid; isonicotinic acid	A	272	3.4	S68	5428
		W	262	3.6	S68	5429
		*1	272	3.7	E23	5430
		*2	266	3.4	E23	5431
	ethyl 3-pyridinecarboxylate; ethyl nicotinate	cH	262	3.5	S66n	5432
	iron(II) pyridine-2-carboxylate		440	2.5	M8n	5433
N-N6-C:O O	3-ureidopyridine-2-carboxylic acid		257 296		K48	5434
O:C-N6-C:O O O	pyridine-2,3-dicarboxylic acid	M	216 262		S2g	5435
	iron(II) pyridine-2,5-dicarboxylate		415	2.3	C25n	5436
O:C-N6-N6-C:O O O	3,3'-bipyridyl-2,2'-dicarboxylic acid	W	274	3.9	S34	5437
O:C-N6-N6-C:O O C O	5-methyl-3,3'-bipyridyl-2,2'-dicarboxylic acid	A	276	4.0	S34	5438
N6-6	2-phenylpyridine	M	245 276	4.1 4.1	M8	5439
	3-phenylpyridine	M	246	4.2	M8	5440
	4-phenylpyridine	M	257	4.2	M8	5441
C-N6-6-C	2-azafluorene	A	267 286 297	4.2 4.0 4.0	C65	5442
N6-6-6	3-(2-pyridyl)biphenyl	H	248	4.6	G8	5443
	3-(3-pyridyl)biphenyl	H	245.5	4.5	G8	5444
	3-(4-pyridyl)biphenyl	H	248	4.6	G8	5445
	4-(2-pyridyl)biphenyl	H	292	4.7	G8	5446
	4-(3-pyridyl)biphenyl	H	279	4.5	G8	5447
	4-(4-pyridyl)biphenyl	H	279	4.5	G8	5448
6 6>N6-6 C	1-methyl-2,4,6-triphenylpyridinium perchlorate		306		W44g	5449

*1 acid *2 alkaline sol.

(N6)(6)₃

(N6)(6)(N:N)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-[p-(dimethylamino)phenyl]-1-methyl-4,6-diphenylpyridinium perchlorate		441		W44g	5450
	4-[p-(dimethylamino)phenyl]-1-methyl-2,6-diphenylpyridinium perchlorate		440		W44g	5451
	2,4-bis[p-(dimethylamino)phenyl]-1-methyl-6-phenylpyridinium perchlorate		440		W44g	5452
	2,6-bis[p-(dimethylamino)phenyl]-1-methyl-4-phenylpyridinium perchlorate		441		W44g	5453
	2,4,6-tris[p-(dimethylamino)phenyl]-1-methylpyridinium perchlorate		436		W44g	5454
N6-C:C-6	2-styrylpyridine	A	275-85 310	4.4	B74	5455
	4-styrylpyridine	A	228 307	4.1 4.5	B74	5456
N6-C:C-6-N	2-[p-(dimethylamino)styryl]pyridine	A	460	4.6	C68	5457
	3-[p-(dimethylamino)styryl]pyridine	A	480	4.6	C68	5458
N6-C:C-6-O	2-(p-methoxystyryl)pyridine	A	~280 325	4.4	B74	5459
	4-(p-methoxystyryl)pyridine	A	328	4.5	B74	5460
N6-C:C-C:C-6	2-(4-phenyl-1,3-butadienyl)pyridine	A	285-95 333	4.7	B74	5461
	4-(4-phenyl-1,3-butadienyl)pyridine	A	332	4.7	B74	5462
6-C:C-N6-C:C-6	2,4-distyrylpyridine	A	295	4.8	B74	5463
	2,6-distyrylpyridine	A	335	4.4	B74	5464
N-6-C:C-N6-C:C-6-N	2,4-bis[p-(dimethylamino)styryl]pyridine	A	510	4.8	C68	5465
(N6)(6)₃(C:C)₃	2,4,6-tristyrylpyridine	A	305 350-60	4.4 4.8	B74	5466
N6-C:C-6-C:C-N6	m-bis[2-(2-pyridyl)vinyl]benzene		270-80 314	4.7	B74	5467
	m-bis[2-(4-pyridyl)vinyl]benzene		308	4.7	B74	5468
	p-bis[2-(2-pyridyl)vinyl]benzene		354	4.7	B74	5469
	p-bis[2-(4-pyridyl)vinyl]benzene		353	4.7	B74	5470
N6-N:N-6-N	2-[p-(dimethylamino)phenylazo]pyridine	1.2	457 525-50	4.6 4.0	K41	5471

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		2.9	554	4.6	K41	5472
		4.0	553	4.5	K41	5473
		5.0	474	4.3	K41	5474
		6.3	466	4.3	K41	5475
	copper(II) complex of 2-[p-(dimethylamino)phenylazo]pyridine		570		K41	5476
	zinc complex of 2-[p-(dimethylamino)phenylazo]pyridine		538		K41	5477
	manganese(II) complex of 2-[p-(dimethylamino)phenylazo]pyridine		540		K41	5478
	cobalt(II) complex of 2-[p-(dimethylamino)phenylazo]pyridine		540		K41	5479
	nickel(II) complex of 2-[p-(dimethylamino)phenylazo]pyridine		550		K41	5480
O ₂ C-N6-N:N-6	2,6-dihydroxy-4-methyl-3-(phenylazo)-pyridine	A	259 413	4.1 4.5	A18	5481
O ₂ C ₂ -N6-N:N-6	2,6-dihydroxy-3,4-dimethyl-3-(phenylazo)pyridine	A	260 417	4.2 4.6	A18	5482
	2-benzoylpyridine	M	263 345		S2g	5483
	3-hydroxy-1-phenyl-3-(2-pyridyl)-2-propen-1-one; benzoylpicolinoylmethane	*1	245 341	3.9 4.4	S1	5484
		*2	237 342	3.9 4.3	S1	5485
		*3	245 341	3.9 4.4	S1	5486
		*4	237 342	3.9 4.3	S1	5487
	3-hydroxy-1-phenyl-3-(3-pyridyl)-2-propen-1-one; benzoylnicotinoylmethane	*1	246 339	3.9 4.3	S1	5488
N6-N5	3-(2-pyrrolyl)pyridine; nornicotyrine	A	229 294	3.8 4.2	S83	5489
		*5	226 286	3.8 4.2	S83	5490

*1 dried M *2 98% M *3 aqueous E *4 dried E *5 neohexane

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	241 316	4.0 4.2	S83	5491
	3-(1-methyl-2-pyrrolyl)pyridine; nicotyrine	A	288	4.0	S83	5492
		*1	244 310	3.9 4.0	S83	5493
C-N6:C	1,2-dihydro-1-methyl-2-methylene- pyridine; 1-methyl-2-pyridone methine	E	275 420	3.3 3.2	A25	5494
C-N6:C-C _S :N-C ₂	1',3-diethylthiazolino-2'-pyridocyanine iodide		400		B135	5495
C-N6:C-6	2-benzylidene-1,2-dihydro-1-methyl- pyridine; 1-methyl-2-pyridone phenyl- methine	E	342 423	4.1 3.4	A25	5496
	4-benzylidene-1,4-dihydro-1-methyl- pyridine; 1-methyl-4-pyridone phenyl- methine	E	342 384	4.0 3.9	A25	5497
N6:C ⁶ ₆	2-(diphenylmethylene)-1,2-dihydro-1- methylpyridine; 1-methyl-2-pyridone diphenylmethine	E	356	4.1	A25	5498
	4-(diphenylmethylene)-1,4-dihydro-1- methylpyridine; 1-methyl-4-pyridone diphenylmethine	E	260 359	4.4 4.5	A25	5499
C-N6:N	1,2-dihydro-2-imino-1-methylpyridine; 1-methyl-2-pyridone imine	D	346	3.5	A24	5500
		E	350	3.5	A24	5501
	1,4-dihydro-4-imino-1-methylpyridine; 1-methyl-4-pyridone imine	*2	272	4.7	A24	5502
C-N6:N-S	2-[(N-acetylanthranilyl)imino]-1,2- dihydro-1-methylpyridine; 1-methyl-2- pyridone (N-acetylanthranilyl)imide	A	265 321	4.4 4.1	S42	5503
N6:O	1,2-dihydro-2-oxopyridine; 2-pyridone; α -pyridone; 2-pyridinol	A	227 297	4.0 3.8	B152u	5504
		C	305	3.7	B73g	5505
		W	290	3.8	B73g	5506
		*3	285	4.1	B73g	5507
	1,4-dihydro-4-oxopyridine; 4-pyridone; γ -pyridone; 4-pyridinol	A	260	4.2	B73g	5508

*1 acid A *2 D+W (9:1) *3 H₂SO₄/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-N6:O		C	260	4.2	B73g	5509
		W	260	4.2	B73g	5510
		*1	235	4.2	B73g	5511
	1,2-dihydro-6-methyl-2-oxopyridine; 6-methyl-2-pyridone; 6-methyl-2- pyridinol	A	230 305	3.9 3.8	R4c	5512
		*2	235 397	4.0 3.8	R4c	5513
	1,2-dihydro-1-methyl-2-oxopyridine; 1-methyl-2-pyridone; 1-methyl-2- pyridinol	A	230 305	3.8 3.7	C113n	5514
		E	309	3.9	A25	5515
		M	230 299	3.8 3.8	S57	5516
		W	296	3.9	A25	5517
		*3	304	3.9	A25	5518
	1,4-dihydro-1-methyl-4-oxopyridine; 1-methyl-4-pyridone; 1-methyl-4- pyridinol	M	272	4.2	S57	5519
O-N6:O	1,2-dihydro-6-hydroxy-2-oxopyridine; 6-hydroxy-2-pyridone; 2,6-pyridinediol; uracil		259	3.8	A43	5520
	1,4-dihydro-1-hydroxy-4-oxopyridine; 1-hydroxy-4-pyridone; 1,4-pyridinediol		228 265	3.8 3.6	S41	5521
	1-benzyloxy-1,4-dihydro-4-oxopyridine; 1-benzyloxy-4-pyridone; 1-benzyloxy- 4-pyridinol		264	3.8	S41	5522
OC-N6:O	1,2-dihydro-6-hydroxy-4-methyl-2-oxo- pyridine; 6-hydroxy-4-methyl-2- pyridone; 4-methyl-2,6-pyridinediol	A	240 322	3.9 4.1	A18	5523
		*4	208.5 291	3.9 3.8	A18	5524
		8.9	237.5 317	3.9 4.2	A18	5525
	1,2-dihydro-6-methoxy-4-methyl-2-oxo- pyridine; 6-methoxy-4-methyl-2- pyridone; 6-methoxy-4-methyl-2- pyridinol	A	228 302	3.8 3.8	A18	5526

*1 H₂SO₄/W *2 0.1N KOH/A *3 D+W (72:28) *4 0.1N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
OC ₂ -N6:O	1,2-dihydro-3-hydroxy-1-methyl-2-oxo-pyridine; 3-hydroxy-1-methyl-2-pyridone; 1-methyl-2,3-pyridinediol	M	299	3.9	B64	5527
		*1	310	3.9	B64	5528
	1,2-dihydro-6-hydroxy-1-methyl-2-oxo-pyridine; 6-hydroxy-1-methyl-2-pyridone; 1-methyl-2,6-pyridinediol		259	3.8	A43	5529
	1-benzyl-1,2-dihydro-6-hydroxy-2-oxo-pyridine; 1-benzyl-6-hydroxy-2-pyridone; 1-benzyl-2,6-pyridinediol		265	3.8	A43	5530
	1,4-dihydro-3-hydroxy-1-methyl-4-oxo-pyridine; 3-hydroxy-1-methyl-4-pyridone; 1-methyl-3,4-pyridinediol	M	281	4.1	B64	5531
		W	278	4.3	W17	5532
		*2	309	4.0	B64	5533
	1,2-dihydro-4-hydroxy-1,6-dimethyl-2-oxopyridine; 4-hydroxy-1,6-dimethyl-2-pyridone; 2-hydroxy-1,6-dimethyl-4-pyridone; 1,6-dimethyl-2,4-pyridinediol	M	282	3.8	W46	5534
	1,2-dihydro-6-hydroxy-3,4-dimethoxy-2-oxopyridine; 1,2-dihydro-6-hydroxy-4,5-dimethoxy-2-oxopyridine; 6-hydroxy-3,4-dimethoxy-2-pyridone; 1,2-dihydro-6-hydroxy-4,5-dimethoxy-2-pyridone; 3,4-dimethoxy-2,6-pyridinediol	A	238 323	3.8 3.9	A18	5535
		*3	251 297	3.6 3.6	A18	5536
		8.9	237 325	3.9 4.2	A18	5537
		W	282	3.8	W46	5538
	1,2-dihydro-6-methoxy-1,4-dimethyl-2-oxopyridine; 6-methoxy-1,4-dimethyl- α -pyridone	A	232 303.5	3.7 4.0	A18	5539
	1,4-dihydro-3-hydroxy-6-(hydroxymethyl)-1-methyl-4-oxopyridine; 3-hydroxy-6-(hydroxymethyl)-1-methyl- γ -pyridone	M	284	4.1	B64	5540
		*2	313	4.0	B64	5541
OC ₃ -N6:O	3-ethyl-1,2-dihydro-4-hydroxy-1,6-dimethyl-2-oxopyridine; 3-ethyl-4-hydroxy-1,6-dimethyl- α -pyridone; 3-ethyl-2-hydroxy-1,6-dimethyl- γ -pyridone	M	287	3.9	B64	5542
		*1	279	3.9	B64	5543
	1,2-dihydro-6-methoxy-1,3,4-trimethyl-2-oxopyridine; 6-methoxy-1,3,4-trimethyl- α -pyridone	A	233 307	3.7 4.0	A18	5544
		*3	231 305	3.6 4.0	A18	5545

*1 0.002M KOH/M *2 0.025M KOH/M *3 0.1N HCl/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		8.9	231 306	3.7 4.0	A18	5546
O ₂ C-N6:O	1,2-dihydro-3,6-dihydroxy-4-methyl-2-oxopyridine; 1,2-dihydro-5,6-dihydroxy-4-methyl-2-oxopyridine; 3,6-dihydroxy-4-methyl-2-pyridone; 5,6-dihydroxy-4-methyl-2-pyridone; 4-methyl-2,3,6-pyridinetriol	A *1	250.5 255	4.0 4.1	A18 A18	5547 5548
O ₂ C ₂ -N6:O	1,2-dihydro-3,6-dihydroxy-4,5-dimethyl-2-oxopyridine; 1,2-dihydro-5,6-dihydroxy-3,4-dimethyl-2-oxopyridine; 3,6-dihydroxy-4,5-dimethyl-2-pyridone; 5,6-dihydroxy-3,4-dimethyl-2-pyridone; 4,5-dimethyl-2,3,6-pyridinetriol	*1	255 305	4.1 3.3	A18	5549
C ₂ -N6:O -6-C	4,9-dihydro-1,9,9-trimethyl-4-oxo-4a-azafluorene	M *2	217 258 340 257 337	4.1 3.6 4.0 3.6 3.9	R23 R23	5550 5551

*1 0.1N HCl/W *2 perchlorate in alkaline M

PART 34. (N65)-, (N65:X)-, AND (X:N65:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
N65	indole	M	216	4.5	N7	5552
			271	3.7		
			278	3.7		
C-N65	tryptophan	A	222	4.6	F49	5553
			281	3.8		
		*1	278	3.7	G20	5554
		*2	281	3.7		
C ₂ -N65	1,2,3,4-tetrahydrocarbazole	M	228	3.9	P20	5556
			281	3.8		
N-N65	2-aminoindole	E	215	4.3	K24	5557
			268	4.1		
		M	266	4.1	K24	5558
		W	264.5	4.1	K24	5559
	2-acetamidoindole	*3	252	4.3	R16	5560
			277	3.9		
		A	220	4.4	K24	5561
			300	4.2		
NC-N65	2-acetamido-3-(dimethylaminomethyl)-indole	A	296	4.1	R16	5562
	2-amino-1-methylindole	E	219	4.4	K24	5563
			281	3.9		
		M	265	3.9	K24	5564
			280	3.8		
	2-acetamido-1-methylindole	W	263	4.0	K24	5565
		*2	263	4.0	K24	5566
		A	283	4.0	K24	5567
O-N65	2-hydroxyindole; oxindole	M	249	4.0	J35	5568
	5-methoxyindole	A	210		P42	5569
			269	3.8		
	6-methoxyindole	A	210		P42	5570
			265	3.7		

*1 0.1N HCl/W *2 0.1N NaOH/W *3 HCl salt in A

system	compound	solv.	λ_{\max} .	loge	ref.	no.
O ₂ -N65	5,6-dimethoxyindole	M	216 271 295	4.4 3.6 3.6	N7	5571
OC-N65	β -(2-hydroxy-3-indolyl)alanine	*1	252.5	3.9	R16	5572
OC ₂ -N65	6-methoxy-2,3-dimethylindole	M	228 273 298	4.5 3.7 3.7	N7	5573
O ₂ C ₂ -N65	5,6-dimethoxy-2,3-dimethylindole	M	227 304	4.4 3.9	N7	5574
O ₃ C-N65	3,5,6-trihydroxy-1-methylindole	A	229 289	4.3 3.6	B24	5575
C-N65-C:O C	1-acetyl-3-methylindole	A	239 299	4.1 3.9	K24	5576
N-N65-C:O C	2-acetamido-3-acetylindole	A	220 250 327	4.3 4.4 4.1	K24	5577
	1-acetyl-2-aminoindole	A	220 254 311	4.3 4.3 4.1	K24	5578
	2-acetamido-1-acetylindole	A	220 299	4.2 4.1	K24	5579
OC-N65-C:O O	ethyl 5-methoxy-2-methyl-3-indole-carboxylate	M	216 242 284	4.5 4.3 4.0	N7	5580
C-N65-N:O	ethyl 2-acetamido-2-[(1-nitroso-3-indolyl)methyl]malonate	A	265	4.1	R16	5581
NC-N65-N:O	ethyl 2-acetamido-2-[(2-acetamido-1-nitroso-3-indolyl)methyl]malonate	A	247	4.1	R16	5582
C ₂ -N65-C:O 6	9-benzoyl-1,2,3,4-tetrahydrocarbazole	M	228 261 311	4.3 4.2 3.7	P20	5583
N65-O:6:O	4-(3-indolyl)-o-benzoquinone	A	217 288 378 539-43	4.4 4.1 3.7 3.9	B153	5584
N65-O:6:O C	4-(3-indolyl)-5-methyl-o-benzoquinone	A	218 281 388 546-51	4.4 4.0 3.7 3.7	B153	5585

*1 HCl salt in A

(N65)(0:6:0)

(0:N65:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-N65- 0:6:0	4-(2-methyl-3-indolyl)-o-benzoquinone	A	245 282 394 595	4.3 4.1 3.5 3.9	B153	5586
C-N65- 0:6:0 -N65-C	2,5-bis(2-methyl-3-indolyl)-p-benzoquinone	Ac	498	3.8	B153	5587
N65- 0:66:0	4-(3-indolyl)-1,2-naphthoquinone	A	252 280 345 400 515	4.2 3.9 3.3 3.4 3.5	B153	5588
	2-(3-indolyl)-1,4-naphthoquinone	A	217.5 283 504-9	4.4 4.3 3.9	B153	5589
C-N65- 0:66:0	4-(2-methyl-3-indolyl)-1,2-naphthoquinone	A	250 280 400 560	4.3 4.1 3.1 3.2	B153	5590
	2-(2-methyl-3-indolyl)-1,4-naphthoquinone	A	245 280 535	4.2 4.2 3.6	B153	5591
O ₂ C-N65- 0:66:0	2-(5,6-dihydroxy-1-methyl-3-indolyl)-1,4-naphthoquinone	A	287 302 545	4.3 4.3 3.8	B153	5592
0:66:0 -N65- 0:66:0	2,3-bis(1,4-naphthoquinon-2-yl)indole	Ac	327 382 480	3.9 4.0 3.6	B153	5593
C ₂ -N65:C-6-N	3-[p-(dimethylamino)benzylidene]-1,2-dimethyl-3H-indolium perchlorate	*1	553	4.6	B139	5594
C ₂ -N65:C-N65-C ₂	1,1',2,2'-tetramethyl-3,3'-indolino-cyanine iodide	*1	490	4.7	B139	5595
0-N65:0	2-methoxy-3-oxo-3H-indole; isatine O ² -methyl ether	A	241 247 307 318 415	4.5 4.5 3.5 3.5 2.9	A42	5596
0:N65:0	2,3-dioxoindoline; isatine	A	247 294 413	4.5 3.3 2.9	A42	5597
		M	243 297	4.3 3.5	J38	5598

*1 nitromethane

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
		*1	242 298 416		M9	5599
O:N65:O C	5-methyl-2,3-dioxoindoline; 5-methyl-isatine		424		S2	5600
	6-methyl-2,3-dioxoindoline; 6-methyl-isatine		416		S2	5601
	1-methyl-2,3-dioxoindoline; 1-methyl-isatine	A	245 299 420	4.4 3.4 2.7	A42	5602
O:N65:O O	5-methoxy-2,3-dioxoindoline; 5-methoxy-isatine		460		S2	5603
	6-methoxy-2,3-dioxoindoline; 6-methoxy-isatine		404		S2	5604
O:N65:O Cl	5-chloro-2,3-dioxoindoline; 5-chloro-isatine		430		S2	5605
	6-chloro-2,3-dioxoindoline; 6-chloro-isatine		405		S2	5606
	7-chloro-2,3-dioxoindoline; 7-chloro-isatine		405		S2	5607
O:N65:C-C	ethyl 3-(2-oxo-3-indolinylidene)propionate	M	256 287	4.3 3.8	J35	5608
O:N65:C-OC	ethyl 3-hydroxy-3-(2-oxo-3-indolinylidene)propionate	M	260 309	4.3 4.2	J35	5609
O:N65:C N	1-methylene-2-(o-nitroanilino)-3-oxo-isoindoline	A	306 372	4.0 3.8	R39	5610
	1-methylene-2-(4-chloro-2-nitroanilino)-3-oxoisoindoline	A	308 395	3.9 3.7	R39	5611
O:N65:C-C:O C O	2-(2-oxo-3-indolinylidene)propionic acid	M	262 294	4.4 3.9	J36	5612
O:N65:N65:O	3,3'-dioxo-2,2'-biindolinylidene; indigo	AA	616		S2	5613
		An	630		S2	5614
		C	605		S2	5615
		*2	285 605	4.4 4.2	S2	5616

*1 conc. H₂SO₄ *2 1,1,2,2-tetrachloroethane

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	601		S2	5617
		*2	591		S2	5618
		*3	678		S2	5619
		V	546		S2	5620
O:N65:N65:O C C	3,3'-dioxo-4,4'-bis(trifluoromethyl)- 2,2'-biindolinylidene; 4,4'-bis(trifluoromethyl)indigo	*4	295 605	4.2 4.0	S2	5621
	5,5'-dimethyl-3,3'-dioxo-2,2'-biindolin- ylidene; 5,5'-dimethylindigo	*4	295 620	4.4 4.2	S2	5622
	6,6'-dimethyl-3,3'-dioxo-2,2'-biindolin- ylidene; 6,6'-dimethylindigo	*4	285 595	4.3 3.9	S2	5623
	3,3'-dioxo-7,7'-bis(trifluoromethyl)- 2,2'-biindolinylidene; 7,7'-bis(trifluoromethyl)indigo	*4	307.5 580	4.4 4.2	S2	5624
	1,1'-dimethyl-3,3'-dioxo-2,2'-biindolin- ylidene; 1,1'-dimethylindigo		645		S2	5625
	1,1'-dibenzyl-3,3'-dioxo-2,2'-biindolin- ylidene; 1,1'-dibenzylindigo		660		S2	5626
O:N65:N65:O O O	5,5'-dimethoxy-3,3'-dioxo-2,2'-bi- indolinylidene; 5,5'-dimethoxyindigo	*4	305 645		S2	5627
	6,6'-dimethoxy-3,3'-dioxo-2,2'-bi- indolinylidene; 6,6'-dimethoxyindigo	*4	282.5 570	4.3 4.0	S2	5628
O:N65:N65:O F F	5,5'-difluoro-3,3'-dioxo-2,2'-biindolin- ylidene; 5,5'-difluoroindigo	C	290 618		B133	5629
		*4	300 615	4.3 4.3	S2	5630
	6,6'-difluoro-3,3'-dioxo-2,2'-biindolin- ylidene; 6,6'-difluoroindigo	*4	295 570	4.2 4.1	S2	5631
	7,7'-difluoro-3,3'-dioxo-2,2'-biindolin- ylidene; 7,7'-difluoroindigo	*4	275 560	4.7 3.9	S2	5632
O:N65:N65:O Cl Cl	4,4'-dichloro-3,3'-dioxo-2,2'-biindolin- ylidene; 4,4'-dichloroindigo	C	290 605	4.6 4.4	B133	5633
		*4	290 610	4.6 4.4	S2	5634

*1 1,2,3,4-tetrahydronaphthalene *2 xylene *3 solid state *4 1,1,2,2-tetrachloro-ethane

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O:N65:N65:O Br Br	5,5'-dichloro-3,3'-dioxo-2,2'-biindolinylidene; 5,5'-dichloroindigo	*1	290 620	4.5 4.2	S2	5635
	6,6'-dichloro-3,3'-dioxo-2,2'-biindolinylidene; 6,6'-dichloroindigo	*1	305 590	4.4 4.2	S2	5636
	7,7'-dichloro-3,3'-dioxo-2,2'-biindolinylidene; 7,7'-dichloroindigo	*1	291 600	4.6 4.3	S2	5637
	4,4'-dibromo-3,3'-dioxo-2,2'-biindolinylidene; 4,4'-dibromoindigo	*1	292.5 610	4.6 4.4	S2	5638
	5,5'-dibromo-3,3'-dioxo-2,2'-biindolinylidene; 5,5'-dibromoindigo	C	285 604	4.3 4.1	B133	5639
		*1	290 620	4.6 4.3	S2	5640
	6,6'-dibromo-3,3'-dioxo-2,2'-biindolinylidene; 6,6'-dibromoindigo	*1	305 590	4.5 4.2	S2	5641
O:N65:N65:O Br ₂ Br ₂	7,7'-dibromo-3,3'-dioxo-2,2'-biindolinylidene; 7,7'-dibromoindigo	*1	293.5 605	4.6 4.3	S2	5642
	5,5',7,7'-tetrabromo-3,3'-dioxo-2,2'-biindolinylidene; 5,5',7,7'-tetrabromoindigo	C	289 611		B133	5643
O:N65:N65:O Br ₃ Br ₂	4,5,5',7,7'-pentabromo-3,3'-dioxo-2,2'-biindolinylidene; 4,5,5',7,7'-pentabromoindigo	C	306 620	4.6 4.4	B133	5644
O:N65:N65:O BrCl BrCl	4,4'-dichloro-5,5'-dibromo-3,3'-dioxo-2,2'-biindolinylidene; 4,4'-dichloro-5,5'-dibromoindigo	C	297 611	4.5 4.3	B133	5645
O:N65:N65:O I I	4,4'-diiodo-3,3'-dioxo-2,2'-biindolinylidene; 4,4'-diiodoindigo	*1	297.5 620	4.5 4.4	S2	5646
	5,5'-diiodo-3,3'-dioxo-2,2'-biindolinylidene; 5,5'-diiodoindigo	*1	295 610		S2	5647
	6,6'-diiodo-3,3'-dioxo-2,2'-biindolinylidene; 6,6'-diiodoindigo	*1	290 590		S2	5648
	7,7'-diiodo-3,3'-dioxo-2,2'-biindolinylidene; 7,7'-diiodoindigo	*1	300 605	4.5 4.2	S2	5649
O:C-O:N65:N65:O-C:O C C	1,1'-diacetyl-3,3'-dioxo-2,2'-biindolinylidene; 1,1'-diacetylindigo	C	278 599	4.3 3.8	B133	5650

*1 1,1,2,2-tetrachloroethane

(O:N65:N65:O)(O:N)₂
0

(S:N65:N65:S)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}}$ - O:N65:N65:O - $\overset{\text{O}}{\underset{\text{O}}{\text{N}}}$:O	5,5'-dinitro-3,3'-dioxo-2,2'-biindolinylidene; 5,5'-dinitroindigo	*1	290 580		S2	5651
	6,6'-dinitro-3,3'-dioxo-2,2'-biindolinylidene; 6,6'-dinitroindigo	*1	290 635		S2	5652
6- O:N65:N65:O -6	3,3'-dioxo-1,1'-diphenyl-2,2'-biindolinylidene; 1,1'-diphenylindigo		630		S2	5653
O:C ₆ < O:N65:N65:O >C ₆ :O	1,1'-dibenzoyl-3,3'-dioxo-2,2'-biindolinylidene; 1,1'-dibenzoylindigo		575		S2	5654
S:N65:N65:S	2,2'-biindolinylidene-3,3'-dithione; thioindigo	0.0	545		M33	5655

*1 1,1,2,2-tetrachloroethane

PART 35. (N66)-, (N66:X)-, AND (X:N66:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N66	quinoline	A	225	4.5	H32	5656
			278	3.5		
			314	3.5		
		M	276	3.7	S82	5657
			311	3.8		
	isoquinoline	H	275	3.7	M50	5658
			311	3.8		
		*1	235	4.5	H32	5659
			315	3.8		
C-N66	2-methylquinoline	A	267	3.6	H32	5660
			320	3.4		
		H	262	3.6	M50	5661
			318	3.6		
	3-methylquinoline	*1	230	4.6	H32	5662
			273	3.3		
			335	3.6		
	4-methylquinoline	10	270	3.6	F49	5663
			316	3.5		
	6-methylquinoline	10	223	4.6	F49	5666
			270	3.5		
			318	3.5		
	7-methylquinoline	10	229	4.5	F49	5667
			276	3.5		
			318	3.5		
	8-methylquinoline	*2	292	3.6	K42g	5668
			314	3.4		
	3-methylisoquinoline	cH	265 324		S2g	5669
	1-methylquinolinium iodide	M	316	3.9	S82	5670

*1 0.01N HCl/W *2 10% A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C ₂ -N66	1,4-dimethylquinolinium iodide	M	314	3.9	S82	5671
N-N66	2-aminoquinoline	A	217 315	4.6 3.7	S65	5672
		*1	212 260 308	4.3 3.8 3.9	S65	5673
		*2	213 310	4.6 3.7	S65	5674
	3-aminoquinoline	A	242 352	4.5 3.6	S65	5675
		*1	236 315 372	4.4 3.3 3.6	S65	5676
		*2	241 337	4.3 3.5	S65	5677
	4-aminoquinoline	A	194 220 298	4.5 4.3 4.0	S65	5678
		*1	195 212 301	4.3 4.1 3.1	S65	5679
		*2	292	3.8	S65	5680
	5-aminoquinoline	A	252 347	4.4 3.5	S65	5681
		*1	265 313 418	4.4 3.0 3.3	S65	5682
		*2	246 339	4.5 3.5	S65	5683
	6-aminoquinoline	A	245 354	4.6 3.6	S65	5684
		*1	257 305 380	4.5 3.5 3.5	S65	5685
		*2	241 343	4.5 3.5	S65	5686

*1 0.01N HCl/W *2 0.01N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	7-aminoquinoline	A	246 355	4.6 3.7	S65	5687
		*1	258 391	4.3 3.9	S65	5688
		*2	240 345	4.6 4.6	S65	5689
	8-aminoquinoline	A	249 340	4.5 3.4	S65	5690
		*1	259 311 387	4.0 3.0 3.0	S65	5691
		*2	245 331	4.3 3.3	S65	5692
	1-aminoisoquinoline	A	300 328	3.8 3.7	S65	5693
		*1	235 283 330	4.3 3.8 3.8	S65	5694
		*2	292 325	3.8 3.6	S65	5695
	4-aminoisoquinoline	A	245 332	4.0 3.8	S65	5696
		*1	216 355	4.5 3.9	S65	5697
		*2	332	3.7	S65	5698
	5-aminoisoquinoline	A	238 336	4.0 3.8	S65	5699
		*1	259 335	4.0 3.5	S65	5700
		*2	240 330	4.0 3.7	S65	5701
	4-[3-(diethylamino)propylamino]- quinoline	C	248 328	4.2 4.1	L1	5702
		*3	232 326 339	4.3 4.2 4.2	L1	5703

*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
NC-N66	2-(dimethylamino)quinoline	A	248 353	4.6 3.8	S65	5704
		*1	240 285 340	4.3 3.8 4.0	S65	5705
		*2	247 350	4.5 3.8	S65	5706
	4-(dimethylamino)quinoline	A	222 301	4.3 4.1	S65	5707
		*1	213 306	4.1 4.2	S65	5708
		*2	301	4.0	S65	5709
	6-(dimethylamino)quinoline	A	257 296 377	4.5 3.8 3.6	S65	5710
		*1	275 440	4.4 3.5	S65	5711
	4-anilinopyridine	A	244 336	4.3 4.2	H32	5712
	4-acetamidoquinoline	A	226.5 298.5	4.7 4.0	H32	5713
	6-amino-8-methylquinoline	A	250 358	4.7 3.7	H85	5714
		*4	223 278 420	4.4 4.8 3.6	H85	5715
		*5	238 314	4.4 3.9	H85	5716
	4-[3-(diethylamino)propylamino]-2-methylquinoline	C	248 321	4.2 4.1	L1	5717
		*3	233 323 333	4.3 4.2 4.2	L1	5718
	4-[3-(diethylamino)propylamino]-3-methylquinoline	C	247.5 328	4.3 3.9	L1	5719

*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W *4 HCl salt/A *5 50% H₂SO₄

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
NC ₂ -N66		*1	243 336 348	4.4 4.2 4.2	L1	5720
		A	260 300 382	4.5 3.7 3.5	S21	5721
	1,2,3,4-tetrahydro-4,7-phenanthroline					
	4-[3-(diethylamino)propylamino]-2,3-dimethylquinoline	C	247 318	4.3 3.9	L1	5722
		*1	244 333.5 342	4.5 4.2 4.2	L1	5723
		A	264 377	4.4 3.4	S21	5724
O-N66	3-hydroxyquinoline	A	234 336	4.4 3.7	E25	5725
		*2	240 345	4.4 3.7	E25	5726
		*3	235 350	4.3 3.7	E25	5727
	5-hydroxyquinoline	A	243 328	4.3 3.2	E25	5728
		*2	252 370	4.3 3.1	E25	5729
		*3	254 365	4.2 3.2	E25	5730
	6-hydroxyquinoline	A	233 276 333	4.2 3.2 3.3	E25	5731
		*2	247 315 344	4.2 3.4 3.3	E25	5732
		*3	245 360	4.2 3.3	E25	5733
	7-hydroxyquinoline	A	332	3.4	E25	5734
		*2	244 349	4.2 3.6	E25	5735

*1 0.1N HCl/W *2 0.01N HCl/W *3 0.01N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		*1	244 360	4.5 3.5	E25	5736
	8-hydroxyquinoline	A	242 310	4.4 3.2	E25	5737
		*2	252 319 360	4.4 3.1 3.1	E25	5738
		*1	254 354	4.2 3.4	E25	5739
	5-hydroxyisoquinoline	A	234 304 326	4.2 3.3 3.3	E25	5740
		*2	248 314 360	4.2 3.1 3.3	E25	5741
		*1	246 336	4.1 3.6	E25	5742
	7-hydroxyisoquinoline	A	262 325 342	3.4 3.2 3.2	E25	5743
		*2	236 274 360	4.4 3.3 3.3	E25	5744
		*1	236 282 364	4.3 3.7 3.3	E25	5745
	2-methoxyquinoline; O-methylcarbostyrl		210 308	4.5 3.5	L20	5746
			308.5 322	3.6 3.7	A42	5747
	4-methoxyquinoline	A	225.5 283	4.8 3.9	H32	5748
		C	283	3.8	L1	5749
		*2	301	3.6	E25	5750
		*1	287	3.6	E25	5751

*1 0.01N NaOH/W *2 0.01N HCl/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	8-methoxyquinoline	A	241 307	4.3 3.2	E25	5752
		*1	240 317 352	4.3 3.1 3.1	E25	5753
		*2	252 304	4.2 3.2	E25	5754
	8-benzoxoquinoline	M	240 307		S2g	5755
O ₂ -N66	3-hydroxy-2-methoxyquinoline		322	3.6	A42	5756
OC-N66	quinine	7.5	280 330	3.8 3.7	S74x	5757
	8-hydroxy-7-(piperidinomethyl)quinoline	*3	252 320 335	4.3 3.2 3.1	P14	5758
		*4	260 340	4.2 3.3	P14	5759
O ₂ C-N66	6,7-methylenedioxy-1-veratryliso-quinoline	A	238 278 322	4.5 4.0 3.8	P42	5760
O ₂ C ₂ -N66	5,8-dimethoxy-1,3-dimethylisoquinoline		225 347	4.1 3.8	G23	5761
O ₂ N-N66	5,6-ethylenedioxy-8-[5-(isopropylamino)-pentylamino]quinoline	M	266		S2g	5762
SC-N66	4-methyl-2-methylthioquinoline		255 339	4.4 3.8	M55	5763
F-N66	2-fluoroquinoline	A	269-70 299 312	3.6 3.4 3.5	M38	5764
		*5	271-2 424	3.8 3.8	M38	5765
	3-fluoroquinoline	A	280-7 306 319	3.5 3.5 3.5	M38	5766
		*5	317	3.7	M38	5767



*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W *4 0.1N NaOH/W *5 0.01M HCl

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C1-N66	5-fluoroquinoline	A	281-9 300-1 314	3.5 3.4 3.3	M38	5768
		*1	312-3	3.7	M38	5769
	6-fluoroquinoline	A	269-72 302 316	3.6 3.5 3.6	M38	5770
		*1	311-2	3.8	M38	5771
	7-fluoroquinoline	A	270 303 316	3.5 3.5 3.6	M38	5772
		*1	311-5	3.8	M38	5773
	8-fluoroquinoline	A	280-8 303 313	3.5 3.4 3.2	M38	5774
		*1	312	3.7	M38	5775
	1-fluoroisoquinoline	A	265 317	3.6 3.5	M38	5776
		*1	272 324	3.8 3.7	M38	5777
	3-fluoroisoquinoline	A	270 326	3.5 3.5	M38	5778
		*1	270 325	3.4 3.5	M38	5779
	4-fluoroisoquinoline	A	270 320	3.6 3.5	M38	5780
		*1	274 333	3.4 3.7	M38	5781
	2-chloroquinoline	A	276-80 304 318	3.6 3.4 3.7	M38	5782
		*1	283 323	3.5 3.6	K42g	5783
	4-chloroquinoline	C	284.5 303 316.5	3.7 3.5 3.5	L1	5784

*1 0.01M HCl *2 10% A

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
	5-chloroquinoline	*1	292 317	3.7 3.5	K42g	5785
	6-chloroquinoline	A	273 306 320	3.6 3.5 3.6	M38	5786
	7-chloroquinoline	*1	279 319	3.6 3.6	K42g	5787
	8-chloroquinoline	*1	292 315	3.7 3.5	K42g	5788
Cl ₂ -N66	4,7-dichloroquinoline	C	279 310 324	3.7 3.5 3.5	L1	5789
ClC-N66	4-chloro-2-methylquinoline	C	245.5 282 307 320	3.7 3.7 3.6 3.6	L1	5790
	4-chloro-3-methylquinoline	C	282 306 320	3.6 3.4 3.4	L1	5791
ClC ₂ -N66	4-chloro-2,3-dimethylquinoline	C	282 306 320	3.5 3.5 3.6	L1	5792
Cl ₂ C-N66	4,7-dichloro-2-methylquinoline	C	243 278 310 324	3.6 3.7 3.6 3.7	L1	5793
	4,7-dichloro-3-methylquinoline	C	244 277 314 327	3.5 3.7 3.5 3.6	L1	5794
Cl ₂ C ₂ -N66	4,7-dichloro-2,3-dimethylquinoline	C	243 276 312 326	3.6 3.7 3.6 3.7	L1	5795
ClN-N66	7-chloro-4-[3-(diethylamino)propyl- amino]quinoline	C	247 327	4.1 4.1	L1	5796
		*2	255 328 341	4.2 4.3 4.3	L1	5797

*1 10% A *2 0.1N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
ClNC-N66	7-chloro-4-[3-(diethylamino)propyl-amino]-2-methylquinoline	C	253.5 326	4.3 4.1	L1	5798
		*1	246.5 324 335	4.3 4.2 4.2	L1	5799
		C	257 335	4.3 3.9	L1	5800
	7-chloro-4-[3-(diethylamino)propyl-amino]-3-methylquinoline	C	257 335	4.3 3.9	L1	5800
		*1	253.5 337 350	4.2 4.0 4.0	L1	5801
		C	253 323	4.3 3.8	L1	5802
ClNC ₂ -N66	7-chloro-4-[3-(diethylamino)propyl-amino]-2,3-dimethylquinoline	C	253 323	4.3 3.8	L1	5802
		*1	255 335 346	4.5 4.1 4.1	L1	5803
I ₂ O-N66	8-hydroxy-5,7-diiodoquinoline	C	339	3.5	M43u	5804
IClO-N66	5-chloro-8-hydroxy-7-iodoquinoline	C	326	3.4	M43u	5805
N66-N66	4,4'-biquinolyl		220 293	4.9 4.0	C107	5806
			230 290	4.8 4.1	C107	5807
	5,5'-biquinolyl		230 290	4.8 4.1	C107	5807
			230 295	4.7 4.0	C107	5808
C-N66-N:N-C	1H-pyrazolo[3,4-c]quinoline	A	234 290 324 336	4.5 3.9 3.5 3.4	O1	5809
			238 289 322 334	4.6 4.0 3.6 3.6		
			238 289 322 334	4.6 4.0 3.6 3.6		
			238 289 322 334	4.6 4.0 3.6 3.6		
O:C-N66-N:N:N	3-amido-4-formylquinoline	A	253 325 340	4.4 3.6 3.6	O1	5811
			253 325 340	4.4 3.6 3.6		
N66-C:O 	iron(II) quinoline-2-carboxylate		515	2.5	M8n	5812
N66-N:O 	6-nitroquinoline	D	250 288		S2g	5813

*1 0.1N HCl/W

(N66)(O:N)
O

(N66)(6)(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N-N66-N:O O	4-amino-6-nitroquinoline	A	279 324 392	4.4 3.7 3.8	H32	5814
	4-anilino-6-nitroquinoline	A	250 283.5 335.5 398	4.4 4.3 3.7 3.9	H32	5815
	4-acetamido-6-nitroquinoline	A	225.5 264 305.5 353.5	4.4 4.3 3.9 3.6	H32	5816
	4-methoxy-6-nitroquinoline	A	266 299 343	4.4 3.9 3.6	H32	5817
	6-nitro-4-phenoxyquinoline	A	257 296 341.5	4.4 3.9 3.7	H32	5818
	6-methoxy-8-nitroquinoline	D	332		S2g	5819
	4-chloro-6-nitroquinoline	A	253 294	4.6 3.9	H32	5820
	11H-indeno[3,2-b]quinoline	A	263 327.5 344	4.6 4.3 4.4	C65	5821
	11H-indeno[2,3-b]quinoline	A	264 329 345	4.6 4.2 4.3	C65	5822
C-N66-6-C	11H-indeno[2,3-f]quinoline	A	265.5 312 328 344	4.7 4.0 4.0 4.2	C65	5823
	4-methoxy-2-phenylquinoline	A	254 294	4.6 4.0	G21	5824
		*1	231 254 316	4.4 4.5 4.2	G21	5825
ClO ₂ C-N66-6-O ₂ C	6-chloro-11,12-dihydro-2,3,7,8-tetra-methoxybenzo[c]phenanthridine	A	250 341	4.5 4.7	B20	5826
N66-C:C-6	2-styrylquinoline	C	281 320	4.3 4.2	C76	5827

*1 HCl salt/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		M	283 328	4.4 4.3	S82	5828
	4-styrylquinoline	M	235 330	4.4 4.3	S82	5829
C-N66-C:C-6	1-methyl-2-styrylquinolinium iodide	M	298 375	4.1 4.5	S82	5830
	1-methyl-4-styrylquinolinium iodide	M	317 391	3.9 4.0	S82	5831
N66-C:C-6-N	2-[p-(dimethylamino)styryl]quinoline	M	396	4.6	B139	5832
N66-C:C-C:C-6	2-(4-phenyl-1,3-butadienyl)quinoline	C	296 358	4.4 4.5	C76	5833
		M	296 355	4.4 4.6	S82	5834
C-N66-C:C-C:C-6	1-methyl-2-(4-phenyl-1,3-butadienyl)quinolinium iodide	M	370 412	4.3 4.4	S82	5835
N66-C:C-C:C-6-N	2-{4-[p-(dimethylamino)phenyl]-1,3-butadienyl}quinoline	M	411	4.6	B139	5836
N66-[C:C] ₃ -6	2-(6-phenyl-1,3,5-hexadienyl)quinoline	C	312 377	4.4 4.7	C76	5837
N66-[C:C] ₄ -6	2-(8-phenyl-1,3,5,7-octatetraenyl)-quinoline	C	398	4.8	C76	5838
N66-[C:C] ₆ -6	2-(12-phenyl-1,3,5,7,9,11-dodecahexaenyl)quinoline	C	435 457	4.9 4.8	C76	5839
6-N66-C:O 	2-phenyl-4-quinolinecarboxylic acid	M	259 333		S2g	5840
6-N66-C:O 	ethyl 6-methyl-2-phenyl-4-quinolinecarboxylate	cH	267 345		S2g	5841
6-N66-C:O 	iron(II) 5,6-diphenyl-2-quinolinecarboxylate		515	2.6	M8n	5842
N66-6-N:O 	1-(p-nitrophenyl)isoquinoline	A	255 326	4.2 4.0	M4	5843
O:N-N66-6-N:O 	5-nitro-1-(p-nitrophenyl)isoquinoline	A	285 340	4.0 4.1	M4	5844
	7-nitro-1-(p-nitrophenyl)isoquinoline	A	255 317.5	4.4 4.1	M4	5845
O:N-N66-6-N:O 	3,4-dimethyl-7-nitro-1-(p-nitrophenyl)-quinoline	A	260 340	4.5 4.2	M4	5846

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-N66:C-C:N-C ₂ S	1',3-diethylthiazolino-2,2'-cyanine iodide		426 440		B135	5847
	1',3-diethylthiazolino-2,4'-cyanine iodide		458		B135	5848
C-N66:C-C:N-6	2-(2-anilino-1,3-butadienyl)-1-ethylquinolinium iodide	M	443	4.7	B141	5849
C-N66:C-C:C-C:N-6	2-(4-anilino-1,3-butadienyl)-1-ethylquinolinium iodide	M	528.5	5.0	B139	5850
C-N66:C-C:C-C:N-6 C	1-ethyl-2-[4-(N-methylanilino)-1,3-butadienyl]quinolinium iodide		515	5.0	B139	5851
C-N66:C-C:6:N-C ₂	2-[p-(dimethylamino)styryl]-1-methylquinolinium iodide	M	522	4.8	B139	5852
	2-[p-(dimethylamino)styryl]-1-ethylquinolinium iodide	M	278 324 423 524	4.0 4.1 4.5 5.2	H78n	5853
C-N66:C-C:C-C:6:N-C ₂	2-{4-[p-(dimethylamino)phenyl]-1,3-butadienyl}quinoline methiodide	M	558	4.7	B139	5854
C-N66:C-N6-C	1,1'-diethyl-2-pyrido-2'-cyanine iodide	M	469 494		B137	5855
	1,1'-diethyl-2-pyrido-4'-cyanine iodide	M	519		B137	5856
	1,1'-diethyl-4-pyrido-2'-cyanine iodide	M	482 507		B137	5857
C-N66:C-N66-C	1,1'-diethylcarbocyanine iodide	M	523.5	4.9	B141	5858
C-N66:C-C:C-N66-C	1,1'-dimethyl-2,2'-tricarbo-cyanine iodide		560 605	4.9 5.3	B137	5859
C-N66:N-N66-C	1,1'-dimethyl-9-azacarbocyanine iodide		424		H4n	5860
C-N66:N-C:N-N66-C	1,1'-diethyl- α,γ -diaz-2,2'-carbocyanine iodide		343		F34u	5861
N66:O	1,2-dihydro-2-quinolinone; 2-quinolone; carbostyryl	A	229 269 328	4.2 3.6 3.5	E25	5862
		*1	226 271 324	4.2 3.6 3.5	E25	5863






*1 0.01N HCl/W

system	compound	solv.	$\lambda_{\text{max.}}$	loge	ref.	no.
C-N66:O	1,4-dihydro-4-quinolinone; 4-quinolone	*2	226 270 325	4.2 3.4 3.4	E25	5864
		*3	232 330	4.4 3.4	E25	5865
		A	233 317 331	4.1 4.0 4.1	E25	5866
		C	246 318 331	4.1 4.0 4.1	L1	5867
		*1	227 314	4.3 3.6	E25	5868
		*2	234 316	4.1 3.8	E25	5869
		*3	317	3.7	E25	5870
	1,2-dihydro-1-isoquinolinone; 1-isoquinolone; isocarbostyryl	A	280 322	3.7 3.3	E25	5871
		C	246 285 331	4.1 3.5 4.1	L1	5872
		*1	278-82 322	3.6 3.3	E25	5873
		*2	268-82 322	3.6 3.3	E25	5874
		*3	298	3.6	E25	5875
		C	268 326	3.8 3.8	L1	5876
	1,2-dihydro-1-methyl-2-quinolinone; 1-methyl-2-quinolone	M	216 270 329	4.6 3.8 3.8	L20	5877
		A	238 316	4.2 4.0	E25	5878
	1,4-dihydro-2-methyl-4-quinolinone; 2-methyl-4-quinolone	C	247 329	4.1 4.1	L1	5879

*1 0.01N HCl/W *2 0.01N NaOH/W *3 10% NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		*1	230 300	4.4 3.7	E25	5880
		*2	237 314	4.2 3.8	E25	5881
	1,4-dihydro-3-methyl-4-quinolinone; 3-methyl-4-quinolone	A	238 339	4.1 4.0	E25	5882
		C	248 338	4.2 4.1	L1	5883
		*1	229 322	4.2 3.6	E25	5884
		*2	238 322	4.1 3.6	E25	5885
	1,4-dihydro-1-methyl-4-quinolinone; 1-methyl-2-quinolone	A	237 338	4.3 4.2	H32	5886
		C	249 339	4.1 4.2	L1	5887
		*3	310	3.9	L1	5888
	1,2-dihydro-2-methyl-1-isoquinolinone; 2-methyl-1-quinolone	A	280	3.8	E25	5889
		*1	276 325	3.6 3.4	E25	5890
		*2	276 325	3.6 3.4	E25	5891
C ₂ -N66:O	1,4-dihydro-2,3-dimethyl-4-quinolinone; 2,3-dimethyl-4-quinolone	C	248 337	4.2 4.1	L1	5892
O-N66:O	1,2-dihydro-5-hydroxy-1-isoquinolinone; 5-hydroxy-1-isoquinolone	A	240 292 332	4.1 4.0 3.6	E25	5893
		*1	236 292 332	4.1 4.0 3.6	E25	5894
		*2	245 310 349	4.0 3.7 3.7	E25	5895
OC-N66:O	1,2-dihydro-3-methoxy-1-methyl-2- quinolinone; 3-methoxy-1-methyl-2- quinolone		273 320	3.8 4.0	A42	5896

*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
Cl-N66:O	7-chloro-1,4-dihydro-4-quinolinone; 7-chloro-4-quinolone	C	253 333	4.3 4.1	L1	5897
ClC-N66:O	7-chloro-4-ethyl-1,2-dihydro-2-quinolinone; 7-chloro-4-ethyl-2-quinolone	C	256 326	4.1 3.9	L1	5898
	7-chloro-1,4-dihydro-2-methyl-4-quinolinone; 7-chloro-2-methyl-4-quinolone	C	252 330	4.4 4.1	L1	5899
	7-chloro-1,4-dihydro-3-methyl-4-quinolinone; 7-chloro-3-methyl-4-quinolone	C	255 340	4.4 4.0	L1	5900
ClC ₂ -N66:O	7-chloro-1,4-dihydro-2,3-dimethyl-4-quinolinone; 7-chloro-2,3-dimethyl-4-quinolone	C	256 339	4.4 4.0	L1	5901
O ₂ C ₂ -N66:O 	5-ethyl-1,2,3,4,5,6-hexahydro-8,9-methylenedioxy-1,6-phenanthridinedione		246 331	4.5 4.0	W4c	5902
	1,2,3,3a,4,5,5a,6-octahydro-8,9-methylenedioxy-5a-azaacephenanthrylene-1,6-dione	A	247 330 344	4.5 4.0 4.0	W4	5903
N66:O 	1,4-dihydro-4-oxo-2-quinolinecarboxylic acid; kynurenic acid; 4-quinolone-2-carboxylic acid	A	243 344	4.4 4.0	F53	5904
	1,4-dihydro-4-oxo-3-quinolinecarboxylic acid; 4-quinolone-3-carboxylic acid	A	241 310	4.4 4.1	H32	5905
C-N66:O 	1,2-dihydro-3-methyl-2-oxo-4-quinolinecarboxylic acid; 3-methyl-2-quinolone-4-carboxylic acid	M	222 273 325	4.6 3.9 3.9	J36	5906
O-N66:O 	1,4-dihydro-6-methoxy-4-oxo-3-quinolinecarboxylic acid; 6-methoxy-4-quinolone-3-carboxylic acid	A	250 310	4.4 3.9	H32	5907
C-N66:O 	1,4-dihydro-1-methyl-6-nitro-4-quinolinone; 1-methyl-6-nitro-4-quinolone	A	265 350	4.1 3.9	H32	5908
N66:O -6	1,4-dihydro-2-phenyl-4-quinolinone; 2-phenyl-4-quinolone	A	257 334	4.6 4.1	G21	5909
		*1	231 268 318	4.4 4.5 4.3	G21	5910

*1 1N HCl/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	262 325	4.4 3.6	G21	5911
C-N66:O -6	1,4-dihydro-1-methyl-2-phenyl-4-quinolinone; 1-methyl-2-phenyl-4-quinolone	A	251 338	4.5 4.2	G21	5912
		*2	234 314	4.7 4.2	G21	5913
C-N66:S	1,4-dihydro-1-methylquinoline-4-thione	M	275 404		C6	5914
	1,2-dihydro-4-methylquinoline-2-thione		241 278.5 383	3.6 4.4 4.1	M55	5915
C ₂ -N66:S	1,4-dihydro-1,2-dimethylquinoline-4-thione	M	275 401		C6	5916
C-N66:S -C:O O	2-ethoxycarbonyl-1,4-dihydro-1-methylquinoline-4-thione	M	286 424		C6	5917
C-N66:S -6	1,4-dihydro-1-methyl-2-phenylquinoline-4-thione	M	286 401		C6	5918
O:N66:O N	8-amino-5,6-dihydro-5,6-quinolinedione	*1	233 272	4.2 4.1	D36	5919

*1 1N NaOH/A *2 0.9N HCl/W *3 1N HCl/W

PART 36. OTHER N₁-AROMATIC CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N75	1-azaazulene	M	224	4.2	N23	5920
ClC-N75-C:N	2-chloro-3-cyano-5-methyl-1-azaazulene	M	286 325 445	4.8 3.9 3.2	N24	5921
	2-chloro-3-cyano-7-methyl-1-azaazulene	M	281 325 445	4.7 3.9 3.0	N24	5922
C-N75:O C:N	3-cyano-1,2-dihydro-5-methyl-1-aza-azulen-2-one	M	277 419	4.6 4.2	N24	5923
	3-cyano-1,2-dihydro-7-methyl-1-aza-azulen-2-one	M	274 425	4.6 4.3	N24	5924
C-N75:O C:O O	ethyl 1,2-dihydro-5-methyl-2-oxo-1-aza-azulene-3-carboxylate	M	278 420	4.5 4.2	N24	5925
	ethyl 1,2-dihydro-7-methyl-2-oxo-1-aza-azulene-3-carboxylate	M	275 427	4.5 4.2	N24	5926
N665	carbazole	A	233.5 293 323	4.6 4.2 3.6	S30	5927
C-N665	1-methylcarbazole	A	237 293 324	4.5 4.2 3.6	S24	5928
	3-carbazolyl diphenyl carbonium chloride	AA	263 372 529	4.5 4.3 4.5	W2	5929
		C	377 537	4.3 4.5	W2	5930
		M	373 529	4.2 4.5	W2	5931
	3-carbazolyl p-(dimethylamino)phenyl phenyl carbonium chloride	AA	417 586	4.1 4.7	B110	5932
		*1	412 579	4.2 4.7	B110	5933
		*2	440 629	4.2 4.8	B110	5934

*1 Ac with 0.01M HCl *2 C with 0.0001M HCl

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₂ -N665	di-(3-carbazolyl) phenyl carbonium chloride	*1	416 585	4.2 4.7	B110	5935
		*2	408 562	4.1 4.5	B110	5936
		AA	445 607	4.1 4.8	B110	5937
		*3	444 601	4.2 4.8	B110	5938
		*4	444 608	4.1 4.7	B110	5939
	9-methylcarbazole	*1	445 606	4.1 4.8	B110	5940
		A	235 293 343-4	4.6 4.2 3.6	S30	5941
		A	230 285-6 312	4.6 4.1 3.8	S30	5942
	3-methylbenz[g]indolizine	A	274 281 336	4.6 4.6 3.7	B80u	5943
			235 289 322 335	4.3 4.2 3.6 3.6	R23	5944
		A	240 270 335 350	4.6 4.6 4.0 4.0	S13n	5945
C ₃ -N665	1,4,9-trimethylcarbazole	M	250 291 346	4.4 4.2 3.8	R24	5946
		*1	290	4.2	R23	5947
		A	246 299 325	4.5 4.2 3.6	C9n	5948
C ₄ -N665	1,4,4a,9-tetramethyl-4aH-4a-azania-fluorene iodide	W	289	4.1	R23	5949

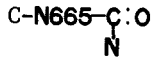

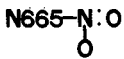
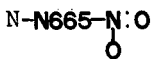




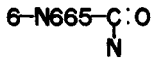

*1 M with 0.01 M HCl
*5 dil. HCl/W

*2 0.1M HCl/W

*3 Ac with 0.01M HCl

*4 C with 0.0001M HCl

(N665)(O:C)
N(N6₃)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	3-methylbenz[g]indolizine-2-carbonamide	A	264 296	4.2 4.7	B80u	5950
	9-nitrosocarbazole	A	222-3 280 325-6	4.6 4.0 3.9	S30	5951
	1-nitrocarbazole	A	225 301 405	4.5 4.2 3.9	C79	5952
	3-nitrocarbazole	A	233 281 307 365	4.5 4.4 4.2 4.0	C79	5953
	3-amino-2-nitrocarbazole	A	269 370 502	4.4 4.2 3.5	S11	5954
	3-amino-9-methyl-4-nitrocarbazole	A	481	3.7	S11	5955
	1,6-dinitrocarbazole	A	223 316-7 379	4.4 4.1 4.0	S30	5956
	3,6-dinitrocarbazole	A	265-6 284-5 359-61	4.5 4.3 4.3	S30	5957
	3-nitro-9-nitrosocarbazole	A	255-6 306-8 330-5	4.5 4.0 4.0	S30	5958
	3-phenylbenz[g]indolizine	A	284 342	4.7 4.2	B80u	5959
	3-phenylbenz[g]indolizine-2-carbonamide	A	258-68 307	4.3 4.6	B80u	5960
	4-azaphenanthrene; benzo[h]quinoline	M	231.5 264		S2g	5961
	1-azaphenanthrene; benzo[g]quinoline		233.5 267 344	4.6 4.3 3.5	J15	5962
	phenanthridine; 9-azaphenanthrene; benzo[c]isoquinoline	A	249 291 332 346	4.6 3.8 3.3 3.3	B9	5963
	1-azaanthracene; benzo[g]quinoline	A	253 357	4.9 3.7	B9	5964

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	2-azaanthracene; benzo[g]isoquinoline	A	250 373	5.0 3.6	B9	5965
	acridine; 9-azaanthracene, benzo[b]-quinoline	A	249 356	5.3 4.0	B9	5966
		D	252 347	5.2 3.9	C103	5967
		*1	258 355	5.0 4.3	T16	5968
		2.5	355	4.3	T16	5969
		11.0	250 355	5.2 4.1	T16	5970
C-N6 ₃	4-methyl-1-azaanthracene; 4-methylbenzo[g]quinoline	A	253.5 355	5.1 3.7	J15	5971
C ₂ -N6 ₃	1,3-dimethyl-4-azaphenanthrene 2,4-dimethylbenzo[h]quinoline	A	270 348	4.9 3.6	J14	5972
	2,3-dimethyl-1-azaphenanthrene; 2,3-dimethylbenzo[f]quinoline		235.5 274 346	4.6 4.3 3.4	J15	5973
			235.5 241	4.6 4.6	J15	5974
			293.5 345	3.9 4.5		
	2,4-dimethyl-1-azaphenanthrene; 1,3-dimethylbenzo[g]quinoline		235.5 241 293.5 345	4.6 4.6 3.9 4.5	J15	5974
	2-isopropyl-8-methyl-1-azaphenanthrene; 3-isopropyl-7-methylbenzo[f]quinoline		300 353	4.1 3.8	R50	5975
	2,4-dimethyl-1-azaanthracene; 2,4-dimethylbenzo[g]quinoline	A	254.5 355.5	5.1 3.8	J15	5976
	3,4-dimethyl-1-azaanthracene; 3,4-dimethylbenzo[g]quinoline	A	254.5 355.5	5.1 3.7	J15	5977
C ₃ -N6 ₃	2,4,10-trimethyl-2-azaanthracene; 2,4,5-trimethylbenzo[g]quinoline	A	259 369.5	5.3 3.8	J14	5978
N-N6 ₃	1-aminoacridine	D	274 360 429	4.6 3.3 3.6	C103	5979
		*1	259 359	4.9 4.3	T16	5980
		2.5	297 360	4.6 3.8	T16	5981

*1 5N HCl/W

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
		11.0	269 360 ~438	4.5 3.5 3.5	T16	5982
	2-aminoacridine	D	267 345 414	4.9 3.6 3.8	C103	5983
		*1	257 356	5.2 4.3	T16	5984
		2.5	280 372	4.7 3.9	T16	5985
		11.0	261 356 405	4.9 3.8 3.7	T16	5986
	3-aminoacridine	D	268 345 418	4.8 3.6 3.9	C103	5987
		*1	258 356 453	4.8 4.2 3.8	T16	5988
		2.5	278 365 462	4.7 4.7 4.2	T16	5989
		11.0	263 353 413	4.8 3.9 3.8	T16	5990
	4-aminoacridine	D	279 360 434	4.6 3.2 3.6	C103	5991
		*1	259 356 401	4.9 4.3 3.5	T16	5992
		2.5	284 363	4.4 3.8	T16	5993
		11.0	265 360	4.9 3.8	T16	5994
	9-aminoacridine	D	266 390	4.9 3.9	C103	5995
		*1	262 393	4.8 4.0	T16	5996

*1 5N HCl/W

(N6₃)(N6₃)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ -N6 ₃		2.5	261 400	5.0 4.0	T16	5997
		11.0	262 405	4.8 4.0	T16	5998
	3,6-diaminoacridine	11.0	260 445	4.7 4.5	C103	5999
	3,7-diaminoacridine	11.0	285 345 485	4.8 3.9 4.1	C103	6000
	3,8-diaminoacridine	11.0	275 430	4.6 4.3	C103	6001
	3,9-diaminoacridine	11.0	255 360	4.8 4.2	C103	6002
	4,5-diaminoacridine	A	272 362 448	4.8 3.2 3.6	C102	6003
		*1	249 353	5.2 4.0	C102	6004
		2.5	248 268 354	4.9 4.3 3.8	C102	6005
		A	252 358 413	4.8 3.3 3.5	C102	6006
NC-N6 ₃	4-amino-5-methylacridine	*1	264 358 426	5.0 4.3 3.5	C102	6007
		*2	255 360 460	5.0 3.9 3.0	C102	6008
	3-amino-10-methylacridinium bromide	D	276 370 465	4.6 4.1 4.1	C103	6009
O-N6 ₃	1-hydroxyacridine	A	260 341 358 400	4.8 3.4 3.5 3.5	A15	6010

*1 5N HCl/W *2 0.25N HCl/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
OC ₂ -N6 ₃	2-hydroxyacridine	*1	258 360 398 570	4.8 3.7 3.5 3.0	A15	6011
		A	254 354 396	5.0 3.8 3.7	A15	6012
		*1	254 354 384	5.0 3.9 3.7	A15	6013
		A	256 350 394 463	4.9 3.6 3.6 3.6	A15	6014
	4-hydroxyacridine	*1	260 351 466	4.4 4.1 4.0	A15	6015
		A	257 360 392	4.8 3.6 3.6	A15	6016
		*2	257 360 390	4.8 3.7 3.6	A15	6017
			249 390	4.6 3.7	G23	6018
	10-methoxy-1,3-dimethyl-2-azaanthracene; 5-methoxy-1,3-dimethylbenzo[g]iso-quinoline	A	346	3.7	B82	6019
		H	351	3.7	C66	6020
		H	345	3.9	C66	6021
		H	349	3.8	C66	6022
		H	348	3.6	C66	6023
Cl ₂ C ₂ -N6 ₃	3,9-dichloro-2,4-dimethyl-1-azaanthracene; 3,10-dichloro-2,4-dimethylbenzo[g]quinoline	A	365	3.7	C66	6024
Br-N6 ₃	10-bromoacridinium bromide	C	357	4.3	A3	6025

*1 20% A/W *2 33% A/W

(N6₃)(N:C)(N6₃:C)(N6₃)(C:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N6 ₃ -C:N-N	9-acridinecarboxaldehyde phenylhydrazone	*1	562	4.1	K29	6026
		*2	562		K28x	6027
N6 ₃ -N:O O	9-nitro-4-azaphenanthrene; 6-nitro-benzo[h]quinoline	M	242	4.5	B32	6028
	8-nitro-4-azaphenanthrene; 7-nitro-benzo[h]quinoline	M	285	4.1	B32	6029
	7-nitro-4-azaphenanthrene; 8-nitro-benzo[h]quinoline	M	249	4.4	B32	6030
	6-nitro-4-azaphenanthrene; 9-nitro-benzo[h]quinoline	M	265	4.5	B32	6031
N6 ₃ -6	2-phenylbenzo[g]quinoline; 2-phenyl-1-azaanthracene	A	227 282 370.5	4.5 4.8 4.9	E17u	6032
	9-phenylacridine	C	260 360	4.5 4.0	A3	6033
		*3	265 360 410	4.6 4.3 3.8	A3	6034
Br-N6 ₃ -6	10-bromo-5-phenylacridinium bromide	C	265 360	4.6 4.3	A3	6035
C-N6 ₃ :C-C:N-C ₂ S	1',3-diethyl-5',6'-benzothiazolino-2'-cyanine iodide		437		B135	6036
C-N6 ₃ :C-N6-C	1,1'-diethyl-3',4'-benzo-2-pyrido-2'-cyanine iodide		475		B137	6037
	1,1'-diethyl-5',6'-benzo-2-pyrido-2'-cyanine iodide		487 517		B137	6038
C-N6 ₃ :C-N66-C	1,1'-diethyl-5,6-benzo-2,2'-cyanine iodide		500		B137	6039
	1,1'-diethyl-3,4-benzo-2,2'-cyanine iodide		522		B137	6040
C-N6 ₃ :C-N6 ₃ -C	1,1'-diethyl-5,6,5',6'-dibenzo-2,2'-cyanine iodide		524 554		B137	6041
	1,1'-diethyl-3,4,5',6'-dibenzo-2,2'-cyanine iodide		534		B137	6042
C-N6 ₃ :C-C:C-N6 ₃ -C	1,1'-diethyl-5,6,5',6'-dibenzo-2,2'-carbocyanine iodide		589 625		B137	6043

*1 HCl/A *2 HCl salt in 0.2N HCl/M *3 HBr salt

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N6 ₃ :O	1,1'-diethyl-3,4,3',4'-dibenzo-2,2'-carbocyanine iodide		611		B137	6044
	9,10-dihydro-9-oxoacridine; acridone	A	251 382 402	4.7 3.9 3.9	A15	6045
C-N6 ₃ :O	5,6-dihydro-5-methyl-6-phenanthridinone; 5-methyl-6-phenanthridone		232 326	4.6 4.0	K21	6046
N6 ₃ 5	benzo[a]acridine	A	252 280 306 355	4.6 4.6 4.3 3.8	C65	6047
	benzo[c]acridine	A	264 326 365	4.7 4.1 3.6	C65	6048
	benzo[b]acridine	A	268 332 394	4.8 4.1 3.7	C65	6049
N6 ₄	1-azatriphenylene; dibenzo[f,h]quinoline	A	247 380 392	4.8 4.2 3.4	B9	6050
	4-azabenz[c]phenanthrene; naphtho-[1,2-f]quinoline	A	280 374	4.7 3.4	B9	6051
	1-azachrysene; naphtho[2,1-f]quinoline	A	262 297.5 359	4.9 4.3 3.3	J15	6052
	5-azachrysene; benzo[c]phenanthridine	A	251 300 345	4.8 4.3 3.5	B9	6053
	4-azabenz[a]anthracene; naphtho[2,3-f]-quinoline	A	256 278 309 342 385	4.8 4.6 4.4 3.8 3.5	F27	6054
	7-azabenz[a]anthracene; benz[a]acridine	A	225 276 364 384	4.6 4.8 4.0 4.0	B9	6055
	8-azabenz[a]anthracene; naphtho[1,2-g]-quinoline	A	222 290 340 350 367 387	4.5 4.8 3.7 3.7 3.7 3.6	B9	6056

(N6₄)(O:N6₅:O)
(O:N6₅:O)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
		*1	305 395	4.6 3.8	B9	6057
C ₂ -N6 ₄	9,11-dimethyl-8-azabenz[a]anthracene; 9,11-dimethylnaphtho[1,2-g]quinoline	A	289 345.5	4.9 3.8	J15	6058
	8,10-dimethyl-11-azabenz[a]anthracene; 8,10-dimethylnaphtho[2,1-g]quinoline	A	219.5 288.5 330	4.7 5.0 3.8	J15	6059
C ₃ -N6 ₄	3-methyl-10-azacholanthrene	A	260 406	4.8 3.9	F27	6060
O-N6 ₄	12-hydroxy-11-azabenz[a]anthracene	A	317 413 434	4.4 4.0 4.0	B14	6061
O ₄ -N6 ₄	2,3,7,8-tetramethoxy-5-azachrysene	C	250 277	4.6 4.7	B20	6062
	2,3,8,9-tetramethoxy-5-azachrysene	C	288 336	4.5 4.0	B20	6063
N6 ₄ 5	dibenzo[a,g]carbazole	A	235 290 349	4.3 4.7 4.2	F11	6064
	dibenzo[a,i]carbazole	A	222 289	4.6 4.9	F11	6065
	dibenzo[c,g]carbazole	A	240 279 366	4.5 4.5 4.4	F11	6066
N6 ₅	dibenz[a,j]acridine	A	292 376 396	4.8 4.0 4.3	B73u	6067
O:N6 ₅ :O O:N6 ₅ :O	dibenz[2,3-a;2',3'-i]acridine- 5,17;10,15-diquinone; 1,1'-imino- 2,2'-bianthraquinonyl	*2	508	4.0	B107	6068

*1 7.5% HCl/A *2 conc. H₂SO₄

PART 37. (N₂5)-, (N₂5:X)-, (X:N₂5:X)-, AND ($\overset{X}{\underset{X}{\text{N}}}$:N₂5:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ 5	pyrazole; iminazole	A	207-8	3.7	L4u	6069
	imidazole	THF	no		W20	6070
$\text{N}_2\text{5}-\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	1-acetylimidazole	THF	254	3.2	W20	6071
C ₂ -N ₂ 5-6	4,5-dimethyl-1-phenylimidazole	M	243	4.1	N14	6072
6-N ₂ 5-6	3,5-diphenylpyrazole	*1	266	4.4	K25	6073
		*2	256	4.6	K25	6074
	2,4-diphenylimidazole	A	295	4.4	H1	6075
		D	295	4.3	H1	6076
		P	305	4.3	H1	6077
		*3	324	4.3	H1	6078
6-N ₂ 5-6 Br	4-bromo-3,5-diphenylpyrazole	*1	250	4.4	K25	6079
		*2	258	4.4	K25	6080
C-6-N ₂ 5-6	1,5-diphenyl-3-(p-tolyl)pyrazole	A	255	4.5	C109u	6081
6-6-N ₂ 5-6	1,5-diphenyl-3-(p-xenyl)pyrazole	iO	289	4.6	C109n	6082
6-N ₂ 5- $\overset{\text{C}}{\underset{\text{C}}{\text{O}}}$	3-acetyl-5-methyl-1-phenylpyrazole	A	255	4.1	R42	6083
O-6-N ₂ 5- $\overset{\text{C}}{\underset{\text{N}}{\text{O}}}$	5-(o-hydroxyphenyl)pyrazole-3-carbon-hydrazide	A	250 295	4.3 3.9	S27u	6084
6-N ₂ 5- $\overset{\text{C}}{\underset{\text{C}_2}{\text{O}}}$	4,5-dimethyl-1-phenylpyrazole-3-carboxylic acid	M	215-60	4.1	N14	6085
C-N ₂ 5-6- $\overset{\text{N}}{\underset{\text{O}}{\text{O}}}$	1-(p-nitrophenyl)-3-methylpyrazole	M	222 323	3.9 4.3	B160n	6086
	5-ethyl-1-(p-nitrophenyl)pyrazole	M	216 299	4.0 4.0	B160n	6087
C ₂ -N ₂ 5-6- $\overset{\text{N}}{\underset{\text{O}}{\text{O}}}$	3,4-dimethyl-1-(p-nitrophenyl)pyrazole	M	232 335	3.8 4.3	B160n	6088

*1 HCl/A *2 NaOH/A *3 NaOC₂H₅/A

$(N_2 5)(6)(O:N)$
0 $(O:N_2 5:C)(6)$

system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
	3,5-dimethyl-1-(p-nitrophenyl)pyrazole	M	220 311	4.0 4.1	B160n	6089
	5-ethyl-1-(p-nitrophenyl)-4-methyl- pyrazole	M	205 306	4.1 4.0	B160n	6090
$C-N_2 5-6-N:O$ C12 O	1-(2,5-dichloro-4-nitrophenyl)-3-methyl- pyrazole	M	297	3.7	B160n	6091
$(N_2 5:C)(6)_4(O:C)_2$	4-(dibenzoylmethylene)-3,5-diphenyl-4H- pyrazole	*1	261	4.6	K25	6092
		*2	262	4.7	K25	6093
$C_2-N_2 5:O -6$	antipyrin	A	247 273	4.0 4.0	B143n	6094
$NC_2-N_2 5:O -6$	4-(dimethylamino)antipyrin	A	255	4.0	B143n	6095
$6-N_2 5:O -N:O$ C2	4-nitrosoantipyrin	A	233 343	4.0 3.9	B143n	6096
$O:N_2 5:C-C_2$ C	2-ethyl-5-isopropylidene-2-imidazolin- 4-one	PE	226 292	3.9 3.9	L8	6097
		*3	237 299	3.7 4.2	L8	6098
		*4	245 325	4.2 3.7	L8	6099
$O:N_2 5:C-6$ S	4-benzylidene-2-methylthio-2-imidazolin- 5-one	A	240 267 362	4.1 4.0 4.5	S80	6100
		*5	240 267 362	4.1 4.0 4.5	S80	6101
		*6	250 308 382	4.0 4.2 4.2	S80	6102
$O:N_2 5:C-6$ SC	4-benzylidene-1-methyl-2-methylthio- 2-imidazolin-5-one	A	245 286 363	4.1 4.0 4.4	S80	6103
		*5	245 286 363	4.1 4.0 4.4	S80	6104

*1 HCl/A *2 NaOH/A *3 100% H₂SO₄ *4 1N KOH/W *5 0.01N HCl
*6 0.01N NaOC₂H₅/A

(O:N₂5:C)(6)(O:N₂5:C)(6)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
		*1	245 286 363	4.1 4.0 4.4	S80	6105
O: O:N ₂ 5:C-6	5-benzylidene-2,4-imidazolidinedione; 5-benzylidenehydantoin	A	320	4.5	S80	6106
		*1	318	4.4	S80	6107
O: O:N ₂ 5:C-6-0	5-(p-methoxybenzylidene)-2,4-imidazol- idinedione; 5-anisylidenehydantoin		232 333	4.0 4.5	S37	6108
O: O:N ₂ 5:C-6 Br	5-(α -bromobenzylidene)-2,4-imidazol- idinedione; 5-(α -bromobenzylidene)- hydantoin	A	329	4.0	M6n	6109
O: O:N ₂ 5:C-6 C	5-benzylidene-1-methyl-2,4-imidazol- idinedione; 5-benzylidene-1-methyl- hydantoin	A	235 335	4.3 4.3	S80	6110
		*1	273 340	4.3 4.2	S80	6111
	5-benzylidene-3-methyl-2,4-imidazol- idinedione; 5-benzylidene-3-methyl- hydantoin	A	317	4.5	S80	6112
		*1	240 363	4.2 4.4	S80	6113
O: O:N ₂ 5:C-6-0 C	5-(p-methoxybenzylidene)-2,4-dioxo- imidazolidin-1-ylacetic acid		346	4.2	S80	6114
	5-(p-methoxybenzylidene)-3-methyl-2,4- imidazolidinedione; 5-anisylidene-3- methylhydantoin		230 345	4.0 4.4	S37	6115
	methyl 5-(p-methoxybenzylidene)-2,4- dioxoimidazolidin-3-ylacetate		232 333	4.1 4.4	S37	6116
O: O:N ₂ 5:C-6 C ₂	5-benzylidene-1,3-dimethyl-2,4-imidazol- idinedione; 5-benzylidene-1,3-di- methylhydantoin	A	313	4.3	S80	6117
		*1	313	4.3	S80	6118
O: O:N ₂ 5:C-6-0 C ₂	5-(p-methoxybenzylidene)-1,3-dimethyl- 2,4-imidazolidinedione; 5-(p-methoxy- benzylidene)-1,3-dimethylhydantoin stable isomer	A	231 331	4.0 4.2	S37	6119
	labile isomer	A	236 350	4.0 4.2	S37	6120

*1 0.01N NaOC₂H₅/A

$(\text{O}:\text{N}_2\text{S}^5:\text{C})(6)$ $(\text{S}:\text{N}_2\text{S}^5:\text{C})(6)$

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
$\text{S}:\text{N}_2\text{S}^5:\text{C}-6$	2-[5-(p-methoxybenzylidene)-3-methyl-2,4-dioxoimidazolidin-1-yl]-2-phenylacetic acid isomer I	A	328	4.2	H0n	6121
	isomer II	A	304	4.3	H0n	6122
	isomer III	A	347	4.3	H0n	6123
	5-benzylidene-4-oxoimidazolidine-2-thione; 5-benzylidene-2-thiohydantoin	A	240 365	4.1 4.5	S80	6124
		*1	245 373	4.1 4.4	S80	6125
$\text{S}:\text{N}_2\text{S}^5:\text{C}-6$	5-benzylidene-3-methyl-4-oxoimidazolidine-2-thione; 5-benzylidene-3-methyl-2-thiohydantoin	A	245 370	4.1 4.5	S80	6126
		*1	245 290 405	4.2 4.0 4.4	S80	6127
$\text{S}:\text{N}_2\text{S}^5:\text{C}-6$	5-benzylidene-1,3-dimethyl-4-oxoimidazolidine-2-thione; 5-benzylidene-1,3-dimethyl-2-thiohydantoin	A	368	4.5	S80	6128
		*1	368	4.5	S80	6129

*1 0.01N NaOC₂H₅/A *2 HCl salt /W

PART 38. (N₂6)-, (N₂6:X)-, AND (X:N₂6:X)-CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ 6	pyridazine	cH	248 340	3.1 2.5	H4	6130
		H	246 250 339	2.8 2.8 2.6	E24	6131
		W	243 248 299	3.1 3.1 2.5	E24	6132
		*2	299	2.2	E24	6133
	pyrimidine	A	244 278-80	3.4 2.5	B78	6134
		W	243 272	3.4 2.5	B78	6135
		0.0	242	3.6	B78	6136
	pyrazine	A	260 311	3.7 2.8	B26	6137
		cH	260 322	3.8 3.0	H4	6138
C-N ₂ 6	3-methylpyridazine	A	251 310	3.1 2.6	O10	6139
	2-methylpyrimidine	A	249	3.5	B78	6140
		W	248	3.5	B78	6141
		0.0	251-2	3.9	B78	6142
	4-methylpyrimidine	A	245	3.4	B78	6143
		W	244	3.5	B78	6144
		0.0	244	3.7	B78	6145
C ₂ -N ₂ 6	1-ethylpyrazinium bromide	A	272	3.9	H4	6146
	4,6-dimethylpyrimidine	A	245.5	3.3	B79	6147
		W	246	3.6	B79	6148
		0.0	208.5 247	3.3 3.6	B79	6149

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C ₃ -N ₂ 6	2,5-dimethylpyrazine	cH	223 324	3.9 3.0	H4	6150
	2,4,6-trimethylpyrimidine	10.2	251 292	3.6 3.1	B79	6151
	1-ethyl-2,5-dimethylpyrazinium bromide	A	286	4.0	H4	6152
N-N ₂ 6	2-aminopyrimidine	A	227 297	4.2 3.6	B78	6153
		W	225 290	4.0 3.4	S74	6154
		3.0	220 300	4.1 3.6	S74	6155
	4-aminopyrimidine	A	236 272-3	4.3 3.7	B78	6156
		W	234 268	4.1 3.6	B78	6157
		0.0	246	4.3	B78	6158
		13.0	233 268-9	4.3 3.7	B78	6159
	5-aminopyrimidine	A	246 315	4.1 3.5	B78	6160
		W	236 298	4.0 3.5	B78	6161
		1.0	253 332	4.2 3.6	B78	6162
	2-(methylamino)pyrimidine	W	234 306-7	4.2 4.3	B147	6163
		1.0	228 315	4.2 3.5	B147	6164
	4-(methylamino)pyrimidine	2.1	254	4.2	B147	6165
		9.0	242 276-7	4.2 3.5	B147	6166
	2-(dimethylamino)pyrimidine	W	243 318	4.3 3.4	B147	6167
		1.0	235 324-5	4.2 3.5	B147	6168
	4-(dimethylamino)pyrimidine	3.2	262	4.2	B147	6169

(N₂6)(N₂6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ -N ₂ 6		9.3	250 286	4.2 3.6	B147	6170
	5-acetamidopyrimidine	W	236	4.1	W16	6171
	5-benzamidopyrimidine	W	256	4.2	W16	6172
		*1	265	4.4	W16	6173
	3-nitraminopyridazine	A	282 325	3.3 3.3	D22	6174
	2-anthranilamidopyrimidine	7.0	257	4.3	V3	6175
	2,4-diaminopyrimidine	6.5	267	3.6	C20	6176
	4,5-diaminopyrimidine	3.2	284	3.9	M18	6177
		8.0	246 289	3.9 3.9	M18	6178
	4,6-diaminopyrimidine	6.5	260	3.6	C20	6179
	5,6,7,8-tetrahydropteridine		268 306	3.7 3.8	B134	6180
		*2	208 304	4.2 3.9	B134	6181
	4-amino-5-formamidopyrimidine	5.9	234 278.5		M8g	6182
		*3	253		M8g	6183
		*4	258.5		M8g	6184
	5-formyl-5,6,7,8-tetrahydropteridine		260 302	3.9 3.8	B134	6185
		*2	218 276	4.1 4.0	B134	6186
N ₃ -N ₂ 6	2,4,5-triaminopyrimidine	0.0	268	3.6	M18	6187
		5.2	228 295	4.2 3.6	M18	6188
		9.8	232-4 303	3.9 3.7	M18	6189
	2,4,6-triaminopyrimidine	2.3	272	3.6	C20	6190

*1 5N HCl/W *2 acid soln. *3 0.1N HCl/W *4 0.1N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₄ -N ₂ 6		6.5	270	3.6	C20	6191
		11.0	268		E11	6192
	4,5,6-triaminopyrimidine	-0.8	265	4.0	M18	6193
		3.6	287	4.0	M18	6194
		8.0	277 380	3.9 2.4	M18	6195
	2,4-diamino-6-(methylamino)pyrimidine	1.0	277		E11	6196
		11.0	270		E11	6197
	2-amino-4,6-bis(methylamino)pyrimidine	1.0	280		E11	6198
		11.0	272		E11	6199
	4,6-diamino-5-formamidopyrimidine	2.3	265	3.6	C20	6200
		6.5	259	3.6	C20	6201
	2,4,5,6-tetraminopyrimidine	2.2	273	3.6	C21	6202
		6.3	250 283	3.5 3.6	C21	6203
		11.0	240 280		E11	6204
	2,4,5-triamino-6-(methylamino)pyrimidine	1.0	275		E11	6205
		11.0	240 280		E11	6206
	2,5-diamino-4,6-bis(methylamino)- pyrimidine	1.0	280		E11	6207
		11.0	240 282		E11	6208
	2,4,6-triamino-5-formamidopyrimidine	2.3	272	3.6	C20	6209
		6.5	268	3.6	C20	6210
NC-N ₂ 6	3-amino-6-methylpyridazine	W	229 299	3.9 3.3	O10	6211
		*1	228 297	3.8 3.2	O10	6212
	3-acetamido-6-methylpyridazine	W	234	4.1	O10	6213

*1 monohydrochloride/W

(N₂6)(N₂6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
NC ₂ -N ₂ 6	3-methyl-6-nitraminopyridazine	A	280 329	3.7 3.8	D22	6214
		*1	291	3.8	D22	6215
	3-methyl-6-(methylnitramino)pyridazine	W	291 342	3.6 3.7	D22	6216
		*1	297	3.4	D22	6217
	2-amino-4-methylpyrimidine	0.0	222 299	4.1 3.7	M15	6218
		13.0	225 289	4.1 3.6	M15	6219
	4-amino-2-methylpyrimidine	W	236	3.9	W34	6220
		*1	245	4.0	W34	6221
		*2	231 272	4.0 3.6	W34	6222
	4-amino-5-methylpyrimidine	W	234 270	3.9 3.7	W34	6223
		*1	254	4.0	W34	6224
		*2	231 269	4.0 3.7	W34	6225
	4-amino-6-methylpyrimidine	W	237	4.0	W34	6226
		*1	250	4.1	W34	6227
		*2	234 268	4.0 3.6	W34	6228
	5-amino-4-methylpyrimidine	0.0	253 324	4.1 3.6	M15	6229
		13.0	234 293	3.9 3.6	M15	6230
	5-amino-1-methylpyrimidinium iodide	W	256 337	4.2 3.6	W16	6231
NC ₂ -N ₂ 6	2-amino-4,6-dimethylpyrimidine	A	229 290	4.3 3.9	B79	6232
		5.6	226 287	4.0 3.7	B79	6233

*1 K salt *2 0.001M HCl *3 0.005M NaOH

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₃ C-N ₂ 6	4-amino-2,5-dimethylpyrimidine	W	236 266	3.9 3.8	W34	6234
		*1	244	4.0	W34	6235
		*2	231 272	4.0 3.7	W34	6236
	4-amino-2,6-dimethylpyrimidine	W	242	3.9	W34	6237
		*1	249	4.0	W34	6238
		*2	236 266	4.0 3.6	W34	6239
	4-amino-5,6-dimethylpyrimidine	W	239 264	3.8 3.9	W34	6240
		*1	258	3.9	W34	6241
		*2	234 270	3.8 3.6	W34	6242
	4-amino-2-methyl-5-(piperidinomethyl)- pyrimidine	A	236 274	3.9 3.7	H65	6243
		0.3	246	4.1	H65	6244
		6.3	235 277	4.0 3.7	H65	6245
	4,5-diamino-6-methylpyrimidine	*3	<210 288	4.0	L27	6246
	5,6,7,8-tetrahydro-4,6-dimethylpteridine	*3	213 306	4.1 4.0	L27	6247
O-N ₂ 6	2,4,5-triamino-6-methylpyrimidine	*3	<210 277	3.7	L27	6248
	4,5-diamino-2-(diethylamino)-6-methyl- pyrimidine	*3	233 290	4.5 3.4	L27	6249
	2-amino-5,6,7,8-tetrahydro-4,6-dimethyl- pteridine	*3	212 233	4.3 4.0	L27	6250
	2-(diethylamino)-5,6,7,8-tetrahydro- 4,6-dimethylpteridine	*3	235	4.4	L27	6251
O-N ₂ 6	2-methoxypyrimidine	A	267.5	3.7	B78	6252
		W	264	3.7	B78	6253

*1 0.001M HCl *2 0.005M NaOH *3 0.1N HCl/W

(N₂6)(N₂6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	4-methoxypyrimidine	0.0	273-4	3.7	B78	6254
		W	247-8	3.5	B147	6255
		0.0	227-8	3.9	B147	6256
O ₂ -N ₂ 6	2,4-dimethoxypyrimidine		257	3.8	A43	6257
OC-N ₂ 6	3-methoxy-6-methylpyridazine	A	271	3.3	O10	6258
		*1	272	3.3	O10	6259
	2-methoxy-4-methylpyrimidine	W	264	3.7	M15	6260
		0.0	272	3.9	M15	6261
		11.0	264	3.7	M15	6262
	4-methoxy-6-methylpyrimidine	W	213 247	3.7 3.5	M15	6263
		1.0	244	3.9	M15	6264
		13.0	213 247	3.7 3.5	M15	6265
OC ₂ -N ₂ 6	2-methoxy-4,6-dimethylpyrimidine	10.2	264	3.8	B79	6266
ON-N ₂ 6	4-amino-2-ethoxypyrimidine	3.0	268	3.6	S74	6267
		7.0	224 276	4.1 3.7	S74	6268
		11.0	224 276	4.1 3.7	S74	6269
ONC-N ₂ 6	4-amino-6-methoxy-2-methylpyrimidine		237	3.9	H65	6270
ONC ₂ -N ₂ 6	4-amino-6-methoxy-2-methyl-5-(piperidinomethyl)pyrimidine	A	242	3.8	H65	6271
		0.3	241 272	3.7 3.8	H65	6272
		6.3	240	3.8	H65	6273
S-N ₂ 6	2-methylthiopyrimidine	A	251 286	4.2 3.3	B78	6274
		W	250	4.1	B78	6275
		0.0	214.5 255 310	3.4 4.2 3.5	B78	6276

*1 monohydrochloride

(N₂6)(N₂6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
SC-N ₂ 6	4-methyl-2-methylthiopyrimidine	0.0	215	3.8	M15	6277
			253	4.2		
			304	3.7		
		7.0	210	3.6	M15	6278
			250	4.4		
		11.0	210	3.6	M15	6279
			250	4.1		
SC ₂ -N ₂ 6	4-methyl-6-methylthiopyrimidine	1.0	233	3.8	M15	6280
			300	4.3		
		7.0	213	3.8	M15	6281
			277	4.0		
		11.0	213	3.8	M15	6282
			277	4.0		
SC ₂ -N ₂ 6	4,6-dimethyl-2-methylthiopyrimidine	5.6	250	4.1	B31	6283
SN-N ₂ 6	4-amino-2-methylthiopyrimidine	A	223.5	4.4	B79	6284
			286.5	3.9		
SNC-N ₂ 6		W	224	4.3	B79	6285
			285	3.8		
		0.0	241	4.5	B79	6286
	4-amino-6-methyl-2-methylthiopyrimidine	A	225	4.4	B79	6287
			248	4.1		
			282	3.9		
SO ₂ -N ₂ 6		W	225	4.3	B79	6288
			248	4.1		
			280	3.9		
		0.0	241	4.5	B79	6289
	2,6-dimethoxy-4-pyrimidinyl disulfide	*1	268	4.2	G25	6290
Cl-N ₂ 6		*2	291	4.4	G25	6291
	2,6-dimethoxypyrimidine-4-sulfonic acid	*1	267	3.8	G25	6292
		*2	267	3.8	G25	6293
Cl-N ₂ 6	2-chloropyrimidine	A	257	4.3	B78	6294
		W	251	4.2	B78	6295
		0.0	256-8	4.1	B78	6296
			287	3.9		

*1 0.1N HCl/A *2 0.1N NaOH/A

(N₂6)(N₂6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
Cl ₂ -N ₂ 6	4-chloropyrimidine	*1	248	3.5	B78	6297
	5-chloropyrimidine	A	258 293	3.3 2.5	B78	6298
		W	211 258	3.9 3.4	B78	6299
		0.0	211-2 260	3.7 3.4	B78	6300
		cH	270 297	3.9 3.1	H4	6301
	3,6-dichloropyridazine	A	271 304	3.1 2.7	H4	6302
	2,4-dichloropyrimidine	M	257	3.6	U0n	6303
		W	258	3.7	B79	6304
	2,5-dichloropyrimidine	A	219 268	4.2 3.5	B79	6305
		W	219 272	4.2 3.5	B79	6306
	4,6-dichloropyrimidine	A	253	3.3	B79	6307
		W	254	3.7	B79	6308
	2,3-dichloropyrazine	cH	213 279	3.8 3.6	H4	6309
	2,5-dichloropyrazine	cH	217 273	3.9 3.6	H4	6310
	2,6-dichloropyrazine	cH	217 273	3.8 3.6	H4	6311
Cl ₃ -N ₂ 6	2,4,5-trichloropyrimidine	A	225 274	4.1 3.6	B79	6312
	2,4,6-trichloropyrimidine	W	263	3.7	B79	6313
Cl ₄ -N ₂ 6	tetrachloropyrimidine	W	232 278	3.9 3.7	B79	6314
	tetrachloropyrazine	cH	233 310	4.1 4.0	H4	6315
ClC-N ₂ 6	3-chloro-6-methylpyridazine	A	265 309	3.1 2.5	H4	6316

*1 hydrochloride/A

(N₂6)(N₂6)

system	compound	solv.	$\lambda_{\max.}$	loge	ref.	no.
ClC ₂ -N ₂ 6		W	263	3.2	010	6317
		*1	262	3.2	010	6318
	2-chloro-4,6-dimethylpyrimidine	A	254	3.6	B79	6319
		W	254.5	3.7	B79	6320
	3-chloro-1-ethyl-6-methylpyridazinium bromide		265	3.2	H4	6321
Cl ₂ C-N ₂ 6	2,4-dichloro-6-methylpyrimidine	W	258	3.7	B79	6322
	4,6-dichloro-2-methylpyrimidine	A	256	3.8	B79	6323
		W	257.5	3.8	B79	6324
ClN-N ₂ 6	4-amino-2-chloropyrimidine	3.0	257 262	3.8 3.8	M41	6325
		7.0	235 275	4.0 3.8	M41	6326
		11.0	234 269 272	4.1 3.9 3.9	M41	6327
	2-amino-4-chloropyrimidine	3.0	300	3.6	S74	6328
		7.0	229 296	4.1 3.6	S74	6329
		11.0	229 296	4.1 3.6	S74	6330
	2-amino-5-chloropyrimidine	A	237 316	4.4 3.6	B79	6331
		W	235 311	4.4 3.6	B79	6332
		0.0	233 325	4.3 3.6	B79	6333
	2,4-diamino-6-chloropyrimidine	1.0	298		E11	6334
		11.0	282		E11	6335
Cl ₂ N-N ₂ 6	5-amino-2,4-dichloropyrimidine	W	250 316	4.2 3.6	W16	6336
		*2	265 340	4.0 3.4	W16	6337

*1 monohydrochloride *2 5N HCl/W

(N₂6)(N₂6)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
ClNC-N ₂ 6	2-amino-4,6-dichloropyrimidine	A	236 298.5	4.2 3.7	B79	6338
		W	233 298.5	4.2 3.8	B79	6339
	2-amino-4-chloro-6-methylpyrimidine	A	232 294	4.2 3.7	B79	6340
		W	230 292	4.1 3.7	B79	6341
ClNC ₂ -N ₂ 6	4-amino-6-chloro-2-methyl-5-(piperidino- methyl)pyrimidine	0.0	211.5 302.5	4.3 3.8	B79	6342
	4-chloro-2-methyl-5-(piperidinomethyl)- 6-[(piperidinomethyl)amino]pyrimidine	0.0	211.5 302.5	4.3 3.8	B79	6342
ClN ₂ C-N ₂ 6	2-chloro-8-ethyl-5,6,7,8-tetrahydro-4- methylpteridine	*1	225 316	4.2 4.0	B134	6346
	5-bromopyrimidine	A	217.5 261 294	3.9 3.3 2.5	B78	6347
Br-N ₂ 6	5-bromopyrimidine	W	216.5 261	4.0 3.5	B78	6348
	bromopyrazine	cH	274 309	3.9 3.1	H4	6350
Br ₂ -N ₂ 6	2,6-dibromopyrazine	cH	274	3.9	H4	6351
Br ₃ -N ₂ 6	tribromopyrazine	cH	289 307	4.1 4.0	H4	6352
BrC-N ₂ 6	5-bromo-2-methylpyrimidine	A	218 266	4.0 3.3	B79	6353
		W	219 267	4.1 3.5	B79	6354
BrN-N ₂ 6	2-amino-5-bromopyrimidine	A	238 315.5	4.3 3.5	B79	6355

*1 acid solution

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		W	237 311.5	4.3 3.5	B79	6356
		0.0	235 326	4.3 3.6	B79	6357
BrNC ₂ -N ₂ 6	2-amino-5-bromo-4,6-dimethylpyrimidine	A	237 302	4.3 3.7	B79	6358
		W	235.5 301	4.3 3.7	B79	6359
BrS-N ₂ 6	5-bromo-2-methylthiopyrimidine	A	218 262	3.6 4.6	B79	6360
		W	218.5 260.5	3.5 4.3	B79	6361
N:N:N-N ₂ 6-N:N:N	2,4-diazidopyrimidine	A	239 285	4.3 3.9	B53	6362
N:N:N-N ₂ 6-N:N:N C	2,4-diazido-6-methylpyrimidine	A	239 279	4.4 4.0	B53	6363
N ₂ C-N ₂ 6-N:C-C ₂	2-amino-7,8-dihydro-4,6-dimethyl- pteridine	*1	226 291	4.5 4.0	L27	6364
	2-(diethylamino)-7,8-dihydro-4,6- dimethylpteridine	*1	244 295	4.5 4.0	L27	6365
ClNC-N ₂ 6-N:C-C ₂	2-chloro-7,8-dihydro-4,6-dimethyl- pteridine	*1	217 ~302	4.4 3.8	L27	6366
NC-N ₂ 6-C:N	4-amino-5-cyano-2-methylpyrimidine	3.0	242 293	4.0 3.7	S74	6367
		7.0	242 293	4.0 3.7	S74	6368
		*2	247 280	4.0 3.6	S74	6369
N ₂ 6-C(=O) O	4-pyrimidinecarboxylic acid	0.0	257	3.6	B78	6370
		13.0	253	3.5	B78	6371
	5-pyrimidinecarboxylic acid	13.0	245-6	3.3	B78	6372
O=C-N ₂ 6-C(=O) O O	iron(II) 2,3-pyrazinedicarboxylate		495	2.5	L19	6373
N ₂ 6-6	2-phenylpyrimidine	W	251	4.2	B78	6374

*1 0.1N HCl/W *2 0.1N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		0.0	256-8 287	4.1 3.9	B78	6375
	5-phenylpyrimidine	A	256	4.1	M8	6376
C-N ₂ 6-6	4-methyl-2-phenylpyrimidine	A	257	4.4	B79	6377
		W	252	4.4	B79	6378
	4-methyl-6-phenylpyrimidine	A	273	4.3	M8	6379
C ₂ -N ₂ 6-6	4,6-dimethyl-2-phenylpyrimidine	A	258	4.3	M8	6380
		W	251	4.2	B79	6381
Cl-N ₂ 6-6	4-chloro-5-phenylpyrimidine	A	250	4.0	M8	6382
Cl-N ₂ 6-6-Cl	4-chloro-5-(o-chlorophenyl)pyrimidine	A	~252	3.7	M8	6383
Cl ₂ C-N ₂ 6-6	4,6-dichloro-2-methyl-5-phenylpyrimidine	A	254	3.8	M8	6384
N ₂ 6-C:C-6	4-styrylpyrimidine	C	316	4.4	K49	6385
N ₂ 6-C:C-C:C-6	4-(4-phenyl-1,3-butadienyl)pyrimidine	C	344	4.6	K49	6386
N ₂ 6-[C:C] ₃ -6	4-(6-phenyl-1,3,5-hexatrienyl)pyrimidine	C	370.5	4.7	K49	6387
N ₂ 6-[C:C] ₄ -6	4-(8-phenyl-1,3,5,7-octatetraenyl)- pyrimidine	C	393.5	4.9	K49	6388
N ₂ 6-[C:C] ₅ -6	4-(10-phenyl-1,3,5,7,9-decapentaenyl)- pyrimidine	C	414.5	4.9	K49	6389
N ₂ 6-[C:C] ₆ -6	4-(12-phenyl-1,3,5,7,9,11-dodecahexaen- yl)pyrimidine	C	432	5.0	K49	6390
N ₂ 6-[C:C] ₇ -6	4-(14-phenyl-1,3,5,7,9,11,13-tetradeca- heptaenyl)pyrimidine	C	447	5.0	K49	6391
N ₂ 6-N:N-6	5-(phenylazo)pyrimidine	*1	232 315	4.0 4.2	W16	6392
6-N ₂ 6 $\begin{smallmatrix} \text{N:N:N} \\ \text{N:N:N} \end{smallmatrix}$	2,4-diazido-6-phenylpyrimidine	A	248 309	4.5 4.2	B53	6393
N ₂ 6-N:C-6 $\begin{smallmatrix} \text{N:O} \\ \text{O} \end{smallmatrix}$	5-(p-nitrobenzylideneimino)pyrimidine	A	303	4.3	W16	6394
N ₂ 6:O	1,6-dihydro-6-pyridazinone	W	280	3.6	O10	6395
	1,2-dihydro-2-pyrimidinone	0.3	309	3.8	B78	6396

*1 10% A/W

(N₂6:0)(N₂6:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-N ₂ 6:0	1,4-dihydro-4-pyrimidinone	6.1	215 299	4.0 3.7	B78	6397
		13.0	290	3.7	B78	6398
		0.0	225 252-4	4.2 3.7	B78	6399
		4.9	227.5	4.0	B78	6400
		13.0	227 264-5	4.0 3.6	B78	6401
	1,6-dihydro-3-methyl-6-pyridazinone	W	285	3.3	O10	6402
		*1	282	3.5	O10	6403
	1,6-dihydro-1-methyl-6-pyridazinone	A	286	3.2	G28	6404
	1,2-dihydro-4(or 6)-methyl-2-pyrimidinone	1.0	305	3.9	M15	6405
		7.0	213 296	4.1 3.8	M15	6406
		13.0	220 290	4.1 3.8	M15	6407
	1,6-dihydro-2-methyl-6-pyrimidinone	A	226.5 268	3.8 3.5	W34	6408
	1,6-dihydro-4-methyl-6-pyrimidinone	0.0	229	4.0	M15	6409
		4.7	228	3.9	M15	6410
		13.0	230 261	4.0 3.6	M15	6411
	1,6-dihydro-5-methyl-6-pyrimidinone	A	229 262	3.8 3.6	W34	6412
		W	239 261	3.7 3.6	W34	6413
		*2	230 264	3.8 3.6	W34	6414
		*3	232 266	3.9 3.7	W34	6415
	1,4-dihydro-1-methyl-4-pyrimidinone		240	4.2	B143	6416
	1,6-dihydro-1-methyl-6-pyrimidinone		220 271	3.8 3.6	B143	6417

*1 monohydrochloride/W *2 0.001N HCl *3 0.005M NaOH

(N₂6:0)(N₂6:0)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
C ₂ -N ₂ 6:O	1,6-dihydro-1,3-dimethyl-6-pyridazinone	A	294	3.4	G28	6418
	1,2-dihydro-4,6-dimethyl-2-pyrimidinone	12.9	223 289	3.9 3.7	B79	6419
	1,6-dihydro-2,4-dimethyl-6-pyrimidinone	A	228 259	3.8 3.7	W34	6420
	1,6-dihydro-2,5-dimethyl-6-pyrimidinone	A	229.5 266	3.8 3.8	W34	6421
		W	238 264	3.8 3.8	W34	6422
		*1	232 262	3.9 3.7	W34	6423
		*2	230 264	3.9 3.8	W34	6424
	1,6-dihydro-4,5-dimethyl-6-pyrimidinone	A	234 260	3.9 3.9	W34	6425
	1,6-dihydro-1,4-dimethyl-6-pyrimidinone	0.0	231	3.9	M15	6426
		7.0	224 268	3.8 3.6	M15	6427
C ₃ -N ₂ 6:O	1,2-dihydro-1,4,6-trimethyl-2-pyrimidinone	0.0	307	4.0	M15	6428
		7.0	218 297	3.8 3.8	M15	6429
C ₄ -N ₂ 6:O	1,2-dihydro-1,3,4,6-tetramethyl-2-oxopyrimidinium iodide	0.0	223 311	4.2 4.1	M15	6430
N-N ₂ 6:O	4-amino-1,2-dihydro-2-pyrimidinone; cytosine	4.0	274	4.0	S74	6431
		7.4	266	3.8	S74	6432
		11.0	278	3.8	S74	6433
	2-amino-1,6-dihydro-6-pyrimidinone	4.0	223 258	3.9 3.8	S74	6434
		7.2	222 267	4.1 3.7	S74	6435
		9.0	218 276	4.0 3.7	S74	6436
	5-amino-1,6-dihydro-6-pyrimidinone	*3	290	4.1	B80	6437

*1 0.001N HCl *2 0.005M NaOH *3 1N HCl/W

(N₂6:0)(N₂6:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₂ -N ₂ 6:0		*1	248 282	3.9 3.9	B80	6438
	4-amino-1,6-dihydro-6-pyrimidinone	6.5	257	3.6	C20	6439
	N-(1,2-dihydro-2-oxopyrimidin-4-yl)- glycine	3.0	259	3.8	S74	6440
		7.0	265	3.8	S74	6441
		11.0	275	3.8	S74	6442
	4,5-diamino-1,2-dihydro-2-pyrimidinone	2.3	305	3.8	M18	6443
		7.0	292	3.6	M18	6444
		13.0	226 303	3.9 3.7	M18	6445
	4,6-diamino-1,2-dihydro-2-pyrimidinone	2.7	273	4.4	S74	6446
		7.2	270	4.2	S74	6447
		10.9	270	4.4	S74	6448
	2,4-diamino-1,6-dihydro-6-pyrimidinone	2.3	265	3.6	C20	6449
		6.5	267	3.6	C20	6450
	4,5-diamino-1,6-dihydro-6-pyrimidinone	-0.8	257	3.8	M18	6451
		6.7	278 372	4.0 2.4	M18	6452
		12.0	272 370	3.9 2.6	M18	6453
N ₃ -N ₂ 6:0	2-amino-4-(2-hydroxyethylamino)-1,6- dihydro-6-pyrimidinone	1.0	268		E11	6454
		11.0	268		E11	6455
	4-amino-5-formamido-1,6-dihydro-6- pyrimidinone	2.3	257	3.6	C20	6456
		6.5	258	3.6	C20	6457
	4,5,6-triamino-1,2-dihydro-2-pyrimidinone	2.0	281	4.0	S74	6458
		6.4	281	3.9	S74	6459
		11.0	281	3.7	S74	6460
	2,4,5-triamino-1,6-dihydro-6-pyrimidinone	2.0	264	4.6	S21	6461

*1 0.1N NaOH/W

(N₂6:0)(N₂6:0)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		6.3	245 275	3.6 3.6	C21	6462
		11.0	240 280		E11	6463
	N-(2,5-diamino-1,6-dihydro-6-oxo-4-pyrimidinyl)glycine	1.0	280	4.1	H70	6464
		11.0	245 286	3.9 3.9	H70	6465
	4,6-diamino-5-formamido-1,2-dihydro-2-pyrimidinone	2.3	271	3.6	C20	6466
		6.5	271	3.6	C20	6467
	2,4-diamino-5-formamido-1,6-dihydro-6-pyrimidinone	2.3	265	3.6	C20	6468
		6.5	267	3.6	C20	6469
		11.0	265	4.1	H70	6470
	2,4-diamino-5-benzamido-1,6-dihydro-6-pyrimidinone	*1	228-30	4.4	W36	6471
	2,4-diamino-1,6-dihydro-5-sulfanilamido-6-pyrimidinone	*1	259	4.3	W36	6472
NC-N ₂ 6:O	4-amino-1,6-dihydro-2-methyl-6-pyrimidinone	A	259	3.7	H65	6473
		0.3	260	4.1	H65	6474
		6.3	260	3.9	H65	6475
	1,6-dihydro-2-methyl-4-piperidino-6-pyrimidinone		232 272	4.3 4.0	H65	6476
NC ₂ -N ₂ 6:O	4-amino-1,6-dihydro-1,3-dimethyl-6-pyridazinone	A	278	3.8	O10	6477
	4-amino-1,6-dihydro-2-methyl-5-(piperidinomethyl)-6-pyrimidinone	A	268	3.9	H65	6478
		0.3	258	4.0	H65	6479
		6.3	262	3.8	H65	6480
	1,6-dihydroxy-2-methyl-4-(methylamino)-5-(piperidinomethyl)-6-pyrimidinone		222 268	4.5 3.9	H65	6481
	1,6-dihydro-2-methyl-5-(piperidino-methyl)-4-[(piperidinomethyl)amino]-6-pyrimidinone		217 268	4.4 3.8	H65	6482

*1 0.1N NaOH/W

(N₂6:0)(N₂6:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₂ C-N ₂ 6:O	4-amino-1,6-dihydro-1,2-dimethyl-6-pyrimidinone		220 264	4.5 3.7	H65	6483
	4,5-diamino-1,2-dihydro-6-methyl-2-pyrimidinone; 5,6-diamino-1,2-dihydro-4-methyl-2-pyrimidinone	*1	214 293	4.1 3.9	L27	4684
	1,2,5,6,7,8(or 2,3,5,6,7,8)-hexahydro-4,6-dimethyl-2-pteridinone	*1	230 325	4.0 3.8	L27	6485
N ₂ C ₂ -N ₂ 6:O	4,5-diacetamido-1,6-dihydro-1,3-dimethyl-6-pyridazinone	W	278	4.1	O10	6486
O-N ₂ 6:O	1,6-dihydro-4-hydroxy-6-pyrimidinone	2.9	270 328	3.7 3.9	S74	6487
		7.0	270 328	3.7 4.0	S74	6488
		11.9	270 328	3.7 4.0	S74	6489
OC-N ₂ 6:O	1,2-dihydro-4-methoxy-1-methyl-2-pyrimidinone		274	3.7	A43	6490
	1,6-dihydro-4-hydroxy-2-methyl-6-pyrimidinone	W	252		F17	6491
		*2	253		F17	6492
		*3	253		F17	6493
	1,6-dihydro-2-methoxy-4-methyl-6-pyrimidinone	4.6	253	3.9	M15	6494
		13.0	222 263	3.8 3.9	M15	6495
	4-ethoxy-1,6-dihydro-2-methyl-6-pyrimidinone	3.0	227 256	4.0 3.6	S74	6496
		7.0	266	3.7	S74	6497
		11.0	266	3.6	S74	6498
ON ₂ -N ₂ 6:O	2,5-diamino-1,6-dihydro-4-hydroxy-6-pyrimidinone	1.0	236 282	3.8 3.9	H70	6499
		11.0	254	4.2	H70	6500
	2-amino-5-(chloroacetamido)-1,6-dihydro-4-hydroxy-6-pyrimidinone	1.0	260	4.1	H70	6501
		11.0	256	4.3	H70	6502

*1 0.1N HCl/W *2 dil. HCl/W *3 dil. KOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
SC-N ₂ 6:0	1,6-dihydro-4-methyl-2-methylthio-6-pyrimidinone	13.0	247 274	3.9 3.8	B79	6503
SN-N ₂ 6:0	5-amino-2-ethylthio-1,6-dihydro-6-pyrimidinone	*1	263 295	4.0 3.9	B80	6504
	5-acetamido-1,6-dihydro-2-methylthio-6-pyrimidinone	*1	256 291	4.1 4.1	B80	6505
SOC-N ₂ 6:0	5-butyl-1,6-dihydro-4-hydroxy-2-isopropylthio-6-pyrimidinone	*1	269	4.0	W25	6506
Cl-N ₂ 6:0	5-chloro-1,2-dihydro-2-pyrimidinone	13.0	230 311	4.3 3.7	B79	6507
ClC ₂ -N ₂ 6:0	4-chloro-1,6-dihydro-1,3-dimethyl-6-pyridazinone	A	306	3.6	O10	6508
Cl ₂ C ₂ -N ₂ 6:0	4,5-dichloro-1,6-dihydro-1,3-dimethyl-6-pyridazinone	A	306	3.6	O10	6509
ClN-N ₂ 6:0	2-amino-4-chloro-1,6-dihydro-6-pyrimidinone	1.0	284		E11	6510
		11.0	275		E11	6511
Br-N ₂ 6:0	5-bromo-1,2-dihydro-2-pyrimidinone	13.0	229 312	4.3 3.6	B79	6512
BrSC-N ₂ 6:0	5-bromo-1,6-dihydro-4-methyl-2-methylthio-6-pyrimidinone	13.0	254 286	3.9 3.9	B79	6513
N ₂ 6:0 -6	1,6-dihydro-3-phenyl-6-pyridazinone	A	250	4.0	D21	6514
C-N ₂ 6:0 -6	1,6-dihydro-3-methyl-1-phenyl-6-pyridazinone	A	313	3.8	O10	6515
	1,6-dihydro-4-methyl-2-phenyl-6-pyridazinone	A	293		C74	6516
		13.0	231 277	4.3 3.9	B79	6517
	1,6-dihydro-2-methyl-4-phenyl-6-pyrimidinone	A	291		C74	6518
N ₂ 6:0 -6	5-amino-1,6-dihydro-3-methyl-1-phenyl-6-pyridazinone	A	302	3.8	O11	6519
	5-acetamido-1,6-dihydro-3-methyl-1-phenyl-6-pyridazinone	C	309	3.7	O11	6520
OC-N ₂ 6:0 -6	1,6-dihydro-5-hydroxy-3-methyl-1-phenyl-6-pyridazinone	C	335	3.7	O11	6521

*1 0.1N NaOH/W

(N₂6:O)(6)(N₂6:S)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	5-ethoxy-1,6-dihydro-3-methyl-1-phenyl-6-pyridazinone	A	297	3.8	011	6522
	5-tert.-butyl-1,6-dihydro-4-hydroxy-2-phenyl-6-pyrimidinone	A	302		F17	6523
Cl-N ₂ 6:O -6	4-chloro-1,6-dihydro-2-phenyl-6-pyrimidinone	13.0	233 280	4.3 3.9	B79	6524
ClC-N ₂ 6:O -6	5-chloro-1,6-dihydro-3-methyl-1-phenyl-6-pyridazinone	A	319	3.8	011	6525
C-N ₂ 6:O -6-Br	1-(p-bromophenyl)-1,6-dihydro-3-methyl-6-pyridazinone	A	315	3.9	011	6526
6-N ₂ 6:O -6	1,6-dihydro-2,4-diphenyl-6-pyrimidinone	D	322		C74	6527
N ₂ -N ₂ 6:O -N:N-6	2,4-diamino-1,6-dihydro-5-phenylazo-6-pyrimidinone	*1	246	4.3	B54	6528
N ₂ -N ₂ 6:O -N:C-6	2,4-diamino-5-(benzylideneamino)-1,6-dihydro-6-pyrimidinone	W	236 285	3.6 3.5	W36	6529
C-N ₂ 6:O -6-N: O	1,6-dihydro-1-(p-nitrophenyl)-3-methyl-6-pyridazinone	A	327	4.0	011	6530
NC-N ₂ 6:O -6-N: O	5-amino-1,6-dihydro-1-(p-nitrophenyl)-3-methyl-6-pyrimidinone	A	325	3.8	011	6531
	5-acetamido-1,6-dihydro-1-(p-nitrophenyl)-3-methyl-6-pyrimidinone	A	324	3.9	011	6532
OC-N ₂ 6:O -6-N: O	5-ethoxy-1,6-dihydro-1-(p-nitrophenyl)-3-methyl-6-pyrimidinone	A	320	4.0	011	6533
ClO-N ₂ 6:O -6-N: O	5-chloro-1,6-dihydro-1-(p-nitrophenyl)-3-methyl-6-pyrimidinone	A	244 330	4.0 4.0	011	6534
N ₂ 6:S	1,2-dihydro-2-pyrimidinethione	0.0	208 285 378	3.9 4.5 3.2	B78	6535
		4.9	278 346	4.3 3.4	B78	6536
		13.0	231 270	3.7 4.2	B78	6537
	1,4-dihydro-4-pyrimidinethione	0.0	306	4.3	B78	6538
		4.5	285 327	4.0 3.9	B78	6539

*1 0.1N NaOH/W

(N₂6:S)(N₂6:S)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.	
C-N ₂ 6:S	1,2-dihydro-4-methyl-2-pyrimidinethione	13.0	292-4	4.0	B78	6540	
		0.0	221 285 366	3.9 4.4 3.2	M15	6541	
		4.7	215 277 338	4.0 4.3 3.5	M15	6542	
	11.0	269	4.2	M15	6543		
	1,6-dihydro-4-methyl-6-pyrimidinethione	0.0	312	4.3	M15	6544	
		4.7	288 322	4.0 4.1	M15	6545	
C ₂ -N ₂ 6:S		1,2-dihydro-4,6-dimethyl-2-pyrimidine-thione	11.0	292	4.2	M15	6546
	0.0		223.5 284 356	4.1 4.6 3.4	B79	6547	
	7.0		217.5 276 332	4.1 4.4 3.7	B79	6548	
	13.0	269	4.3	B79	6549		
	C ₃ -N ₂ 6:S	1,2-dihydro-1,4,6-trimethyl-2-pyrimidinethione	0.0	225 283 355	3.9 4.4 3.4	M15	6550
			7.0	220 277 332	4.0 4.2 3.6	M15	6551
N ₂ -N ₂ 6:S			4,5(or 5,6)-diamino-1,2-dihydro-2-pyrimidinethione	1.0	231 293	4.0 4.3	M18
	6.5	271		4.2	M18	6553	
	12.4	221 269 312		4.2 4.2 3.7	M18	6554	
	4,6-diamino-1,2-dihydro-2-pyrimidine-thione	*1	235 286	4.6 4.4	S74	6555	
		7.4	245 292	4.3 4.1	S74	6556	

*1 0.1N HCl/W

(N₂6:S)(O:N₂6:O)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
		9.0	245 292	4.2 4.2	S74	6557
N ₃ -N ₂ 6:S	4,5,6-triamino-1,2-dihydro-2-pyrimidine-thione		245 295	4.1 4.1	S74	6558
O ₂ -N ₂ 6:S	1,6-dihydro-2,4-dimethoxy-6-pyrimidine-thione	*1	311	4.3	G25	6559
		*2	290	4.3	G25	6560
S-N ₂ 6:S	1,6-dihydro-4-mercapto-6-pyrimidine-thione	3.0	248.5	4.5	B79	6561
		7.0	214 260 283	3.9 4.1 4.3	B79	6562
		13.0	268.5 316.5	4.5 4.4	B79	6563
Cl-N ₂ 6:S	5-chloro-1,2-dihydro-2-pyrimidinethione	13.0	227 279	3.9 4.4	B79	6564
O:N ₂ 6:O	1,2,3,4-tetrahydro-2,4-pyrimidinedione; uracil	3.0	258	3.9	S74	6565
		7.0	258	3.9	S74	6566
		11.0	282	3.8	S74	6567
O:N ₂ 6:O C	1,2,3,4-tetrahydro-5-methyl-2,4-pyrimidinedione; thymine	3.0	264	3.9	S74	6568
		7.0	264	3.9	S74	6569
		11.0	290	3.7	S74	6570
	1,2,3,4-tetrahydro-6-methyl-2,4-pyrimidinedione; 6-methyluracil	A	260		B53	6571
		4.6	261	4.0	M15	6572
		7.4	260	4.0	B35n	6573
		13.0	277	3.8	M15	6574
	1,2,3,4-tetrahydro-1-methyl-2,4-pyrimidinedione; 1-methyluracil		268	4.0	A43	6575
	1,2,3,4-tetrahydro-3-methyl-2,4-pyrimidinedione; 3-methyluracil		259	3.8	A43	6576
O:N ₂ 6:O C ₂	1,2,3,4-tetrahydro-1,3-dimethyl-2,4-pyrimidinedione; 1,3-dimethyluracil	3.0	258	4.0	L29	6577
		7.0	257.5	4.0	L29	6578

*1 0.1N HCl/W *2 0.1N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		11.0	256	4.0	L29	6579
O:N ₂ 6:O C ₃	1,2,3,4-tetrahydro-1,3,6-trimethyl-2,4-pyrimidinedione; 1,3,6-trimethyluracil	7.0	268	4.0	M15	6580
O:N ₂ 6:O N	5-amino-1,2,3,4-tetrahydro-2,4-pyrimidinedione; 5-aminouracil	3.0	260	4.1	S74	6581
		7.0	225 290	4.0 3.8	S74	6582
	6-amino-1,2,3,4-tetrahydro-2,4-pyrimidinedione; 6-aminouracil	2.3	262	3.6	C20	6583
		6.5	264	3.6	C20	6584
O:N ₂ 6:O N ₂	5,6-diamino-1,2,3,4-tetrahydro-2,4-pyrimidinedione; 5,6-dimethyluracil	2.0	260	3.6	C21	6585
		6.3	273	3.6	C21	6586
O:N ₂ 6:O O	1,2,3,4-tetrahydro-5-hydroxy-2,4-pyrimidinedione; isobarbituric acid; 5-hydroxyuracil	4.0	222 276	3.6 3.8	S74	6587
		7.4	210 278	3.8 3.7	S74	6588
		11.0	239 307	3.7 3.7	S74	6589
	1,2,3,4-tetrahydro-6-hydroxy-2,4-pyrimidinedione; barbituric acid; 6-hydroxyuracil	M	254.5 327.5		S2g	6590
		W	257	4.4	H63	6591
		*1	257	2.7	S74	6592
		3.0	257	4.0	S74	6593
		7.0	257	4.5	S74	6594
		11.0	257	4.4	S74	6595
O:N ₂ 6:O OC	1,2,3,4-tetrahydro-6-hydroxy-5-isopropyl-2,4-pyrimidinedione; 5-isopropylbarbituric acid	*2	270.5	4.3	M25	6596
O:N ₂ 6:O S	1,2,3,4-tetrahydro-2,4-dioxypyrimidine-6-sulfonic acid; uracil-6-sulfonic acid	*3	264	3.9	G25	6597
		*4	293	4.0	G25	6598
O:N ₂ 6:O ClC	5-chloro-1,2,3,4-tetrahydro-6-methyl-2,4-pyrimidinedione; 5-chloro-6-methyluracil	*5	287	3.8	C99	6599

*1 1N HCl/W

*2 0.5N NaOH/W

*3 0.1N HCl/W

*4 0.1N NaOH/W

*5 0.05N NaOH/W

(O:N₂6:0)(S:N₂6:0)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:N ₂ 6:0 O	5-chloro-6-(chloromethyl)-1,2,3,4-tetrahydro-6-methyl-2,4-pyrimidinedione; 5-chloro-6-(chloromethyl)uracil	*1	303	3.8	C99	6600
	1,2,3,4-tetrahydro-2,4-dioxypyrimidine-5-carboxylic acid; uracil-5-carboxylic acid	3.0	216 270	4.1 4.0	S74	6601
		7.0	216 270	4.1 4.0	S74	6602
		11.0	232 290	4.0 4.1	S74	6603
O:N ₂ 6:0 N:O	1,2,3,4-tetrahydro-5-nitro-2,4-pyrimidinedione; 5-nitrouracil	3.0	235 300	3.8 4.0	S74	6604
		7.0	235 338	3.9 4.0	S74	6605
		11.0	240 358	3.8 4.2	S74	6606
O:N ₂ 6:0 -6	1,2,3,4-tetrahydro-6-phenyl-2,4-pyrimidinedione; 6-phenyluracil	A	285		B53	6607
S:N ₂ 6:0	1,2,3,4-tetrahydro-4-oxo-2-pyrimidine-thione; 2-thiouracil	1.0	278	4.1	E12	6608
		7.0	274	4.0	E12	6609
		11.0	260 312	4.0 3.8	E12	6610
	1,2,3,4-tetrahydro-2-oxo-4-pyrimidine-thione; 4-thiouracil	1.0	327	4.2	E12	6611
		7.0	329	4.2	E12	6612
		11.0	336	4.2	E12	6613
S:N ₂ 6:0 C	1,2,3,4-tetrahydro-5-methyl-4-oxo-2-pyrimidinethione; 5-methyl-2-thiouracil	1.0	281	4.3	E12	6614
		7.0	279	4.2	E12	6615
		11.0	265 311	4.2 3.9	E12	6616
	1,2,3,4-tetrahydro-5-methyl-2-oxo-4-pyrimidinethione; 5-methyl-4-thiouracil	1.0	332	4.1	E12	6617
		7.0	335	4.0	E12	6618
		11.0	343	4.0	E12	6619

*1 0.05N NaOH/W

(S:N₂6:O)(S:N₂6:S)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S:N ₂ 6:O O	1,2,3,4-tetrahydro-6-hydroxy-4-oxo-2-pyrimidinethione; 2-thiobarbituric acid	M	283		S2g	6620
S:N ₂ 6:O OC	5-ethyl-1,2,3,4-tetrahydro-6-hydroxy-4-oxo-2-pyrimidinethione; 5-ethyl-2-thiobarbituric acid	4.0	239 273	3.8 4.1	S74	6621
		7.4	239 273	3.8 4.1	S74	6622
		11.0	239 273	4.6 4.1	S74	6623
S:N ₂ 6:S	1,2,3,4-tetrahydro-2,4-pyrimidine-dithione; dithiouracil	1.0	283 340	4.3 4.1	E12	6624
		7.0	286 362	4.3 4.0	E12	6625
		11.0	277 362	4.2 3.9	E12	6626
S:N ₂ 6:S C	1,2,3,4-tetrahydro-5-methyl-2,4-pyrimidinedithione; 5-methyldithiouracil	1.0	286 340	4.2 3.9	E12	6627
		7.0	283 363	4.2 3.9	E12	6628
		11.0	275 365	4.2 3.8	E12	6629

PART 39. OTHER N₂-AROMATIC CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
N ₂ 65	1H-indazole	A	253 285	3.6 3.7	B29	6630
		W	250 285	3.6 3.6	R38	6631
	benzimidazole	M	200 245 272 279	4.4 3.8 3.8 3.8	L20	6632
		*1	246 277	3.7 3.7	L20	6633
C-N ₂ 65	1-methyl-1H-indazole	A	258 291	3.6 3.7	B29	6634
		W	255 294	3.6 3.7	R38	6635
	2-methyl-2H-indazole	A	285	3.8	B29	6636
		W	273 293	3.8 3.8	R38	6637
	2-methylbenzimidazole	M	245 280	4.1 4.2	S66	6638
	2-methylpyrrolo[2,3-b]pyridine		289	4.0	C9	6639
C ₂ -N ₂ 65	2,8-dimethylimidazo[1,2-a]pyrimidine		282	3.7	C9	6640
C ₃ -N ₂ 65	5,6,7,8-tetrahydro-1-methyl-4a,9-diaza-fluorene		233	4.5	C9	6641
			278	3.6		
			313	3.7		
N-N ₂ 65	2-aminobenzimidazole	A	244	3.8	S66	6642
			283	3.9		
Cl-N ₂ 65	5-chlorobenzimidazole	A	248	3.7	S66	6643
			280	3.7		
ClN-N ₂ 65	2-amino-5-chlorobenzimidazole	A	251	3.8	S66	6644
			292	3.9		
Br ₂ C ₂ -N ₂ 65	1,3-dibromo-5,6,7,8-tetrahydro-4a,9-diazafluorene		245	4.5	C9	6645
			290	3.7		
			325	3.7		

 *1 NaOCH₃/M

(N₂65)(N:C)(N₂66)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₂ 65-C:N	3-cyano-1H-indazole	W	291	3.9	R38	6646
C-N ₂ 65-C:N	3-cyano-1-methyl-1H-indazole	W	298	4.0	R38	6647
	3-cyano-2-methyl-2H-indazole	W	295	4.0	R38	6648
N ₂ 65-C:O 	1H-indazole-3-carboxylic acid	W	292	3.9	R38	6649
C-N ₂ 65-C:O 	1-methyl-1H-indazole-3-carboxylic acid	W	300	3.9	R38	6650
	2-methyl-2H-indazole-3-carboxylic acid	W	307	3.9	R38	6651
Br-N ₂ 65-N:O 	3-bromo-5-nitro-1H-indazole	A	262 315	4.4 3.9	B29	6652
	3-bromo-6-nitro-1H-indazole	A	257 336	4.2 3.5	B29	6653
BrC-N ₂ 65-N:O 	3-bromo-1-methyl-5-nitro-1H-indazole	A	262 322	4.3 3.8	B29	6654
	3-bromo-2-methyl-5-nitro-2H-indazole	A	267 300 341	4.4 3.8 3.8	B29	6655
	3-bromo-1-methyl-6-nitro-1H-indazole	A	260 354	4.3 3.5	B29	6656
	3-bromo-2-methyl-6-nitro-2H-indazole	A	269 351	4.4 3.5	B29	6657
O:N ₂ 65:O 	4,5,6,7-tetrahydroxy-1H-indazole-4,7-dione	*1	438	3.6	W14	6658
O:N ₂ 65:O C:O 	3-ethoxycarbonyl-4,5,6,7-tetrahydroxy-1H-indazole-4,7-dione	*1	438	3.6	W14	6659
N ₂ 66	cinnoiline	M	276 322.5 390	3.5 3.3 2.4	H32	6660
	quinazoline	A	220 270 308	4.6 3.5 3.5	H32	6661
	quinoxaline	M	233 315	4.4 3.8	B87	6662
C ₂ -N ₂ 66	2,3-dimethylquinoxaline	M	237 315	4.4 3.8	B87	6663

*1 50% AA/W

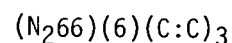
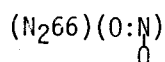
(N₂66)(N₂66)

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	2,3-tetramethylenequinoxaline	A	238 323	4.5 4.0	L12	6664
	2,3-pentamethylenequinoxaline	A	236 323	3.5 3.9	L12	6665
C ₃ -N ₂ 66	1-ethyl-2,3-dimethylquinoxalinium iodide	W	317	3.7	D40n	6666
C ₄ -N ₂ 66	methyl 4,6,7-trimethylcinnolinylacetate	A	234.5 270 351 364	4.4 4.3 4.1 4.1	H32	6667
N ₂ -N ₂ 66	3-aminocinnoline	M	237 385	4.6 3.4	A16	6668
		*1	235 310 405	4.6 3.9 3.5	A16	6669
		*2	233 372	4.5 3.4	A16	6670
	4-aminocinnoline	A	240 345	4.1 4.1	H32	6671
	4-aminoquinazoline	A	284 313	3.9 3.8	H32	6672
	8-aminoquinazoline	A	238 341	4.5 3.5	E10	6673
	4-anilinocinnoline	A	248 364	4.2 4.2	H32	6674
	4-anilinoquinazoline	A	234.5 294 333	4.2 3.9 4.2	H32	6675
	4-acetamidocinnoline	A	226 303.5 328.5	4.6 3.9 3.9	H32	6676
	4-acetamidoquinazoline	A	243 281 314	4.2 3.8 3.9	H32	6677
NC-N ₂ 66	8-amino-4-methylcinnoline	A	333 416	3.4 3.6	M5	6678
O-N ₂ 66	4-methoxycinnoline	A	224 291 313	4.6 3.7 3.7	H32	6679

*1 0.01N HCl/W *2 0.01N NaOH/W

(N ₂₆₆)		(N ₂₆₆)(O:N) 0				
system	compound	solv.	λ _{max.}	logε	ref.	no.
	4-methoxyquinazoline	A	225 261 309	4.4 3.7 3.9	H32	6680
	4-phenoxycinoline	cH	225 292.5 323	4.7 3.8 3.7	H32	6681
	4-phenoxyquinazoline		263.5 298 310	3.8 3.6 3.6	H32	6682
ON-N ₂₆₆	8-amino-6-methoxyquinazoline	A	253 347	4.5	H32	6683
C1-N ₂₆₆	3-chlorocinnoline	M	285 330	3.3 3.4	A16	6684
		*1	285 335	3.3 3.4	A16	6685
		*2	285 338	3.4 2.5	A16	6686
	6-chloroquinazoline	A	273 313	4.0 3.5	S43	6687
C1NC-N ₂₆₆	1-ethyl-9-chloro-2,3-dihydro-1H-imidazo- [1,2c]quinazolin-4-ium chloride	A	286 345	3.9 3.6	S43	6688
C1O-N ₂₆₆	4-acetoxy-6-chlorocinnoline	A	246 300 346.5	4.3 3.6 4.1	H32	6689
C1OC-N ₂₆₆	4-acetoxy-3-chloro-6-methylcinnoline	A	247 351.5	4.3 4.1	H32	6690
C1OC ₂ -N ₂₆₆	4-acetoxy-3-chloro-6,7-dimethylcinnoline	A	246 349	4.3 4.1	H32	6691
O:C-N ₂₆₆ -C:O O O	iron(II) 2,3-quinoxalinedicarboxylate		520	2.5	L19	6692
N-N ₂₆₆ -N:O O	4-amino-6-nitrocinnoline	A	255 272 326.5 402	4.2 4.2 3.7 3.9	H32	6693
	4-amino-6-nitroquinazoline	A	255 332	4.2 3.9	H32	6694

*1 0.01N HCl/W *2 0.01N NaOH/W






system	compound	solv.	$\lambda_{max.}$	$\log \epsilon$	ref.	no.
$O-N_266-N:O$	4-anilino-6-nitrocinnoline	A	247 278 343.5 418	4.4 4.1 3.8 4.1	H32	6695
	4-anilino-6-nitroquinazoline	A	239.5 364	4.4 4.0	H32	6696
	4-acetoxy-6-nitrocinnoline	A	229 260 305 362	4.7 4.2 3.9 3.9	H32	6697
	4-acetoxy-6-nitroquinazoline	A	252 331	4.2 3.9	H32	6698
	4-methoxy-6-nitrocinnoline	A	243 290.5 353.5	4.3 3.7 3.7	H32	6699
	4-methoxy-6-nitroquinazoline	A	295	3.9	H32	6700
	4-acetoxy-6-nitrocinnoline	A	236 323.5 362	4.2 4.0 4.0	H32	6701
	2-chloro-6-nitroquinoxaline	M	260 300	4.3 3.9	H78	6702
	2-chloro-7-nitroquinoxaline	M	259 330	4.3 3.6	H78	6703
	2-chloro-5-methoxy-7-nitroquinoxaline		247 285	4.1 4.2	H78	6704
	2-chloro-8-methoxy-6-nitroquinoxaline		245 283	4.2 4.3	H78	6705
	2-phenylquinoxaline	M	263 335	4.4 4.1	B87	6706
$C-N_266-6$	1-(2-hydroxyethyl)-3-phenylquinoxalinium chloride	W	259 377	4.6 4.0	D40n	6707
$6-N_266-6$	2,3-diphenylquinoxaline	M	244 345	4.5 4.1	B87	6708
$C-N_266-C:C-6$	2-methyl-3-styrylquinoxaline	M	285 365	4.4 4.4	B87	6709
$C-N_266-C:C-C:C-6$	2-methyl-3-(4-phenyl-1,3-butadienyl)-quinoxaline	M	299 385	4.4 4.5	B87	6710
$C-N_266-[C:C]_3-6$	2-methyl-3-(6-phenyl-1,3,5-hexatrienyl)-quinoxaline	M	316 403	4.5 4.5	B87	6711

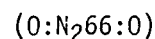
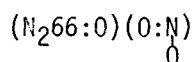
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
(N ₂ 66)(6) ₂ (C:C) ₂	2,3-distyrylquinoxaline	M	304 395	4.6 4.3	B87	6712
(N ₂ 66)(6) ₂ (C:C) ₄	2,3-bis(4-phenyl-1,3-butadienyl)- quinoxaline	M	326 365	4.8 4.8	B87	6713
(N ₂ 66)(6) ₂ (C:C) ₆	2,3-bis(6-phenyl-1,3,5-hexatrienyl)- quinoxaline	E	352 394	4.8 4.9	B87	6714
N ₂ 66:0	2,3-dihydro-3-cinnolinone	A	300 312 400	2.8 2.8 3.5	A16	6715
		W	226 300 394	4.7 2.9 3.5	A16	6716
		*1	300 398	2.9 3.5	A16	6717
		*2	385	3.6	A16	6718
	1,4-dihydro-4-cinnolinone		237 338	4.1 4.1	H32	6719
	1,4-dihydro-4-quinazolinone		223.5 265 300.5	4.4 3.8 3.6	H32	6720
	1,2-dihydro-2-quinoxalinone	*3	226 357	4.4 3.7	L2	6721
	1,2-dihydro-1-phthalazinone	M	250		S2g	6722
	1,4-dihydro-3-methyl-4-cinnolinone	A	237.5 347.5 358.5	4.1 4.1 4.0	H32	6723
		A	251.5 352 369	3.9 4.1 4.1	H32	6724
C-N ₂ 66:0	2,3-dihydro-2-methyl-3-cinnolinone	M	305 400	3.1 3.5	A16	6725
		*1	303 400	3.1 3.5	A16	6726
		*2	303 395	3.1 3.5	A16	6727

*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W

(N₂66:0)(N₂66:0)(0:N)
0

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	1,4-dihydro-1-methyl-4-quinazolinone	A	230 306.5	4.1 3.8	H32	6728
	3,4-dihydro-3-methyl-4-quinazolinone	A	230 267	4.4 3.8	H32	6729
O-N ₂ 66:O	1,2-dihydro-2-quinoxalinone 4-oxide	*1	228 342	4.3 3.7		6730
O ₂ -N ₂ 66:O	1,4-dihydro-6,7-dimethoxy-4-cinnolinone	A	289.5 347	3.4 4.0	H32	6731
	1,4-dihydro-6,7-methylenedioxy-4-cinnolinone	A	256.5 358	4.3 4.2	H32	6732
O ₂ C ₂ -N ₂ 66:O	methyl 1,4-dihydro-6,7-dimethoxy-1-methyl-4-oxocinnolin-3-yl acetate	A	240.5 379	4.6 4.2	H32	6733
NO-N ₂ 66:O	7-amino-1,2-dihydro-5-hydroxy-2-quinoxalinone	M	226 280 353	4.8 4.4 4.0	H78	6734
	7-amino-1,2-dihydro-5-methoxy-2-quinoxalinone	M	225 270 356	4.5 4.2 4.0	H78	6735
	6-amino-1,2-dihydro-8-methoxy-2-quinoxalinone	M	265 398	4.4 3.6	H78	6736
ClC-N ₂ 66:O	3-chloro-1,4-dihydro-6-methyl-4-cinnolinone		243.5 299 351.5	4.2 3.7 4.1	H32	6737
	6-chloro-3,4-dihydro-3-[2-(ethylamino)-ethyl]-4-quinazolinone	A	269 311	4.0 3.6	S43	6738
Br ₂ -N ₂ 66:O	3,6-dibromo-1,4-dihydro-4-cinnolinone	A	253 304 369	4.3 3.9 4.1	H32	6739
BrCl-N ₂ 66:O	6-bromo-3-chloro-1,4-dihydro-4-cinnolinone	A	249.5 303 367.5	4.3 3.9 4.0	H32	6740
N ₂ 66:O 	1,4-dihydro-4-oxo-3-cinnolinecarboxylic acid	A	263 339	3.9 4.1	H32	6741
O-N ₂ 66:O 	1,4-dihydro-6-methoxy-4-oxo-3-cinnolinecarboxylic acid	A	254.5 352	4.3 4.1	H32	6742
N ₂ 66:O 	1,4-dihydro-6-nitro-4-cinnolinone	A	236 324.5 364.5	4.2 3.9 4.1	H32	6743

*1 0.1N HCl/W



system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	3,4-dihydro-6-nitro-4-quinazolinone	A	316.5	4.0	H32	6744
	1,2-dihydro-6-nitro-2-quinoxalinone	M	264 341	4.1 4.0	H78	6745
	1,2-dihydro-7-nitro-2-quinoxalinone	M	273 362	4.0 3.8	H78	6746
$C-N_2 66:O \mid \overset{O}{\underset{O}{N:O}}$	1,4-dihydro-3-methyl-6-nitro-4-cinnolinone	A	238.5 325.5 376	4.3 4.0 4.2	H32	6747
	1,4-dihydro-1-methyl-6-nitro-4-cinnolinone	A	241 328 370	4.2 4.0 4.1	H32	6748
	1,4-dihydro-1-methyl-6-nitro-4-quinazolinone		274 322	3.6 4.0	H32	6749
	3,4-dihydro-3-methyl-6-nitro-4-quinazolinone	A	223 317.5	4.4 4.1	H32	6750
	1,2-dihydro-3-methyl-6-nitro-2-quinoxalinone	M	265 335	4.3 4.1	H78	6751
	1,2-dihydro-3-methyl-7-nitro-2-quinoxalinone	M	279 360	4.1 3.8	H78	6752
$O-N_2 66:O \mid \overset{O}{\underset{O}{N:O}}$	1,2-dihydro-8-methoxy-6-nitro-2-quinoxalinone	M	280 340	4.2 4.0	H78	6753
	1,2-dihydro-5-methoxy-7-nitro-2-quinoxalinone	M	278 335	4.0 4.0	H78	6754
$N_2 66:O \mid \overset{O}{\underset{O}{6-N:O}}$	1,2-dihydro-2-(p-nitrophenyl)-1-phthalazinone	A	294 330	4.1 4.1	R39	6755
$C-N_2 66:O \mid \overset{O}{\underset{O}{6-N:O}}$	1,2-dihydro-4-methyl-2-(p-nitrophenyl)-1-phthalazinone	A	293 331	4.0 4.1	R39	6756
$N_2 66:O \mid \overset{O}{\underset{Cl}{\underset{O}{6-N:O}}}$	2-(4-chloro-2-nitrophenyl)-1,2-dihydro-1-phthalazinone	A	~ 290		R39	6757
$C-N_2 66:O \mid \overset{O}{\underset{Cl}{\underset{O}{6-N:O}}}$	2-(4-chloro-2-nitrophenyl)-1,2-dihydro-4-methyl-1-phthalazinone	A	~ 280		R39	6758
$O:N_2 66:O$	1,2,3,4-tetrahydro-2,3-quinoxalinedione	*1	310	4.0	L2	6759
$O:N_2 66:O$ $\underset{O}{\mid}$	1,2,3,4-tetrahydro-2,3-quinoxalinedione 4-oxide	*1	312	4.0	L2	6760

*1 0.1N HCl/W

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
O:N ₂ 66:N-O ₂	methyl ester of 4,6-dihydro-6-acinitro-4-cinnolinone	A	258.5 335.5 399	4.2 3.6 4.1	H32	6761
N ₂ 75	1,3-diazaazulene	M	218 250 303 390	4.3 4.6 3.8 3.0	N20	6762
NC-N ₂ 75-6-O ₃ C	7-acetamido-10-amino-6,7-dihydro-1,2,3-trimethoxy-5H-9,11-diazabenz[3,4]-cyclohepteno[1,2-f]azulene	M	226 375 390	4.6 4.4 4.4	N12	6763
SC-N ₂ 75-6-O ₃ C	7-acetamido-6,7-dihydro-10-mercapto-1,2,3-trimethoxy-5H-9,11-diazabenz[3,4]cyclohepteno[1,2-f]azulene	M	255 312 463	4.6 4.0 4.5	N12	6764
N ₂ 665	9H-1,9-diazafluorene; α -carboline		237 288 348	4.6 4.2 3.7	H77	6765
	β -carboline	A	239 284 327 340	4.7 4.4 3.8 3.8	C65	6766
	3H-pyrrolo[2,3-c]quinoline		240 300	4.7 4.1	C64	6767
	1H-pyrrolo[2,3-f]quinoline		265 320	4.7 3.6	C64	6768
	3H-pyrrolo[3,2-f]quinoline		264 331	4.4 4.0	C64	6769
		*1	278 342 402	4.4 3.8 3.2	H85	6770
	1H-pyrrolo[3,2-h]quinoline		248 281 330	4.1 4.5 3.6	C64	6771
C-N ₂ 665	1-methyl- β -carboline; harman	*2	249 301 368	4.3 4.2 3.7	S24	6772
		*3	287 336 349	4.2 3.7 3.7	S24	6773

*1 HCl salt in A *2 HCl/A (1:1) *3 NaOH/A (1:1)

(N₂665)(N₂665:0)

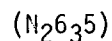
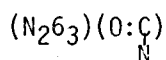
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₃ -N ₂ 665	1-(o-methylbenzyl)- β -carboline; yobirine	A	237 290 348	4.7 4.2 3.8	P42	6774
	1,9-dimethyl- β -carboline	A	237 288 359	4.6 4.1 3.7	D31	6775
	1-(o-methylbenzyl)-2-methyl- β - carbolinium chloride	A	258 309 384	4.6 4.4 3.9	P42	6776
	1-ethyl-3,5-dimethyl-3H-pyrrolo[3,2-f]- quinoline	*1	285 366	4.4 3.8	H85	6777
	5-methoxy-1-methyl- β -carboline	A	244 344	4.6 3.7	D31	6778
	6-methoxy-1-methyl- β -carboline	A	231 296 358	4.5 4.2 3.6	D31	6779
	7-methoxy-1-methyl- β -carboline; harmine	A	242 300	4.6 4.2	D31	6780
	8-methoxy-1-methyl- β -carboline	A	242 340	4.7 3.7	D31	6781
	5-methoxy-1,9-dimethyl- β -carboline	A	249 352	4.6 3.8	D31	6782
	6-methoxy-1,9-dimethyl- β -carboline	A	231 298	4.5 4.2	D31	6783
OC ₂ -N ₂ 665	7-methoxy-1,9-dimethyl- β -carboline	A	245 303	4.6 4.2	D31	6784
	8-methoxy-1,9-dimethyl- β -carboline	A	218 247 350	4.4 4.6 3.7	D31	6785
	7-methoxy-1,2-dimethyl- β -carbolinium iodide	A	255 327	4.4 4.3	P42	6876
	5-methyl-1,2-tetramethylene-3H-pyrrolo- [3,2-f]quinoline hydrochloride	A	247 302 357 453	4.3 4.2 3.6 3.7	H85	6787
	9H-4,5-diazafluoren-9-one; 4,5-diaza- fluorenone	A	242 303.5 316	4.6 3.9 3.9	I2	6788

*1 NaOH/A (1:1)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₂ 6 ₃	1,7-phenanthroline; 1,5-diaza-phenanthrene; m-phenanthroline	*1	228 269	4.6 4.4	K59	6789
		*2	275	4.5	K59	6790
		*3	276	4.5	K59	6791
	1,10-phenanthroline; 4,5-diaza-phenanthrene; o-phenanthroline	A	231 266 309	4.7 4.6 2.8	B9	6792
		*1	228 263	4.6 4.5	K59	6793
		*2	219 271	4.5 4.5	K59	6794
	4,7-phenanthroline; 1,8-diaza-phenanthrene; p-phenanthroline	*1	233 271	4.6 4.4	K59	6795
		*2	221 276	4.5 4.5	K59	6796
		*3	225 276	4.5 4.4	K59	6797
	5,6-phenanthroline; 9,10-diaza-phenanthrene; benzo[c]cinnoline; phenazone	A	253 308 354 373	4.7 4.0 3.2 3.2	B9	6798
		A	250 370	4.2 3.2	R0n	6799
	1,10-phenanthroline complex of Cu(I) (1:1)		435	3.8	W30u	6800
	1,10-phenanthroline complex of Zn(II) (2:1)		270		W30u	6801
	1,10-phenanthroline complex of Fe(II) (1:1)		400-50	2.3	W30u	6802
	1,10-phenanthroline complex of Fe(II) (3:1)		510	4.0	W30u	6803
	1,10-phenanthroline complex of Fe(III) (3:1)		590	0.5	W30u	6804
	1,10-phenanthroline complex of Co(II) (2:1)		304		W30u	6805

*1 base *2 univalent ion *3 bivalent ion

(N ₂ 6 ₃)		(N ₂ 6 ₃)(O: $\overset{\text{C}}{\underset{\text{N}}{\text{N}}})$				
system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C-N ₂ 6 ₃	1,10-phenanthroline complex of Ni(II) (2:1)		307		W30u	6806
	3-benzyl-4,7-diazaphenanthroline	A	242 275	4.6 4.5	S34	6807
	1-methylphenazine	A	255 362.5	4.2 3.5	B68	6808
	2-methylphenazine	A	250 362.5	4.3 3.5	B68	6809
C ₂ -N ₂ 6 ₃	2-methyl-1,10-phenanthroline complex of Fe(II) (2:1)		440	3.0	W33u	6810
	1,10-dimethyl-5,6-phenanthroline	A	252 330	4.6 4.0	W43	6811
	2,9-dimethyl-1,10-phenanthroline complex of Cu(I)		455	3.9	W33u	6812
N ₂ -N ₂ 6 ₃	4,7-dimethyl-1,10-phenanthroline complex of Fe(II)		530-60		W33u	6813
O-N ₂ 6 ₃	1-hydroxyphenazine	A	273 375	4.7 3.9	B10	6814
	2-hydroxyphenazine	A	279 327 405	4.8 3.9 3.8	B10	6815
		W	278 334 407 495	4.8 4.0 3.6 3.4	B10	6816
	2-methoxyphenazine	A	277 360 388	4.9 4.0 3.9	B10	6817
	4-hydroxy-1,10-phenanthroline complex of Fe(II)		544		W33u	6818
O ₂ -N ₂ 6 ₃	5,6-phenanthroline 5,6-dioxide	A	253 330	4.4 4.0	B9	6819
	phenazine 5,10-dioxide	C	536		C67	6820
O ₃ -N ₂ 6 ₃	1-hydroxyphenazine 5,10-dioxide	C	483		C67	6821
Cl ₂ -N ₂ 6 ₃	1,3-dichloro-4,7-phenanthroline	A	244 279	4.6 4.4	S34	6822
N ₂ 6 ₃ - $\overset{\text{C}}{\underset{\text{N}}{\text{N}}}\text{O}$	phenazine-1-carbonamide	A	250 365		B68	6823



system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	phenazine-2-carbonamide	A	257.5 365		B68	6824
$N_26_3-\overset{\underset{O}{ }}{C}:\overset{\underset{O}{ }}{O}$	methyl phenazine-1-carboxylate	A	245 365		B68	6825
$O-N_26_3-\overset{\underset{O}{ }}{C}:\overset{\underset{O}{ }}{O}$	ethyl 4-hydroxy-1,10-phenanthroline-3-carboxylate complex of Fe(II)		561		W33u	6826
N_26_3-6	2-phenyl-4,7-phenanthroline	A	245 287	4.4 4.3	S34	6827
	3-phenyl-4,7-phenanthroline	A	248 291	4.5 4.6	S34	6828
$OC-N_26_3:\overset{\underset{O}{ }}{O}$	2-benzyl-3,4-dihydro-1-hydroxy-4,7-phenanthroline-3-one; 2-benzyl-1,3-dihydroxy-4,7-phenanthroline		231 276 354	4.5 4.3 3.8	S34	6829
N_26_35	pyrido[2,3-a]carbazole	A	243 292	4.6 4.7	C64	6830
	pyrido[3,2-a]carbazole	A	245 292	4.5 4.6	C64	6831
	pyrido[2,3-c]carbazole	A	245.5 280 341	4.5 4.5 4.0	C64	6832
	benzo[c]- β -carboline	A	259 327.5	4.6 4.2	C64	6833
	11H-indolo[2,3-b]quinoline	A	272 334 372	4.7 4.3 3.6	C65	6834
	11H-indolo[3,2-b]quinoline	A	272 343 385	4.7 4.3 3.6	C65	6835
$C-N_26_35$	8-methylpyrido[2,3-a]carbazole	A	245 294	4.5 4.6	C64	6836
	8-methylpyrido[3,2-a]carbazole	A	246 297	4.5 4.6	C64	6837
	10-methylpyrido[2,3-c]carbazole	A	248 283 345	4.4 4.4 4.0	C64	6838
	1-methyl-5H-indolo[3,2-c]quinoline	A	240 290	4.4 4.5	B123c	6839
	6-methylbenzo[c]- β -carboline	A	258 325	4.6 4.2	C64	6840

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₂ -N ₂ 6 ₃ 5	7,10-dodecamethylene-8,9-diaza-fluoranthene	io	238 352	4.5 4.7	A17	6841
	9,10,11,12-tetrahydroisoquino[3,2-a]- β -carboline; sempervirine		241 330 395	4.6 4.3 4.2	W51	6842
N ₂ 6 ₄	4,9-diazapyrane	A	236 330 370	4.9 4.2 4.0	B16	6843
	1,5-diazatriphenylene	M	254	4.8	B32	6844
	1,8-diazatriphenylene	M	252 340	4.5 3.7	B32	6845
	4,10-diazachrysene	M	272 363 394	4.5 3.7 3.7	B32	6846
	8-methylbenzo[a]-3,5-phenanthroline		270 372	4.6 3.8	O2	6847
O ₂ -N ₂ 6 ₄	5,6-dihydroxybenzo[a]phenazine	D	306 430	4.6 3.6	B10	6848
	5,6-dimethoxybenzo[a]phenazine	A	255 293 300 406	4.6 4.6 4.6 3.9	B10	6849
N ₂ 6 ₄ -6	8-phenylbenzo[a]-3,5-phenanthroline		280	4.6	O2	6850
C-N ₂ 6 ₄ :O	5,6-dihydro-8-methylbenzo[a]-3,5-phenanthroline-6-one		255	4.6	O2	6851
N ₂ 6 ₃ 5 ₂	7,12-dihydroindolo[3,2-a]carbazole	M	261 356	4.5 4.0	H2	6852
C-N ₂ 6 ₃ 5 ₂	7,12-dihydro-6-methylindolo[3,2-a]-carbazole	M	261 356	4.5 4.1	H2	6853
N ₂ 6 ₅	5,8-diazapentaphene		245 328 387 410	4.7 4.6 3.2 3.2	C87	6854
C-N ₂ 6 ₆	5-methylbenzo[a]naphtho[3,2-c]phenazine	D	265 324.5 418	4.8 4.4 4.2	F49	6855
N ₂ 6 ₅ 5 ₂	1,9';9,1'-dicarbazolylene	D	291 394 414	4.3 4.2 4.3	P20	6856

PART 40. N₃-AROMATIC CHROMOPHORES

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
N ₃ 5	1H-1,2,3-triazole	A	209	3.6	H12	6857
C-N ₃ 5	4-heptyl-1H-1,2,3-triazole	A	216	3.7	H12	6858
NC-N ₃ 5	5-amino-3-methyl-1H-1,2,4-triazole	W	no		G17	6859
C ₂ -N ₃ 5-N ₃ 5	3,5-dimethyl-1,3'-bi(1H-1,2,4-triazolyl)	A	214	3.8	A39	6860
C ₂ -N ₃ 5-C(=O) C	1-acetyl-3,5-dimethyl-1H-1,2,4-triazole	H	222	3.8	A38	6861
N ₃ 5-6	4-phenyl-1H-triazole	A	248	4.2	H12	6862
	1-phenyl-1H-1,2,4-triazole	A	239	4.0	A38	6863
	4-phenyl-4H-1,2,4-triazole	A	224.5	4.0	A38	6864
C-N ₃ 5-6	1-methyl-3-phenyl-1H-1,2,4-triazole	A	243	4.2	A38	6865
	1-methyl-5-phenyl-1H-1,2,4-triazole	A	235	4.1	A38	6866
	4-methyl-3-phenyl-4H-1,2,4-triazole	A	270	2.7	A38	6867
	3-methyl-1-phenyl-1H-1,2,4-triazole	A	244	4.2	A38	6868
	5-methyl-1-phenyl-1H-1,2,4-triazole	A	224.5	3.9	A38	6869
	3-methyl-4-phenyl-4H-1,2,4-triazole	A	267 272	2.6 2.6	A38	6870
C ₂ -N ₃ 5-6	1,5-dimethyl-3-phenyl-1H-1,2,4-triazole	A	245	4.2	A38	6871
	1,3-dimethyl-5-phenyl-1H-1,2,4-triazole	A	239	4.1	A38	6872
	3,4-dimethyl-5-phenyl-4H-1,2,4-triazole	A	235.5	4.1	A38	6873
	3,5-dimethyl-1-phenyl-1H-1,2,4-triazole	A	230	4.0	A38	6874
	3,5-dimethyl-4-phenyl-4H-1,2,4-triazole	A	259	2.5	A38	6875
N-N ₃ 5-6	3-amino-5-phenyl-1H-1,2,4-triazole	M	257		S2g	6876
O-N ₃ 5-6	3-hydroxy-5-phenyl-1H-1,2,4-triazole	A	258	3.9	A39	6877
		*1	255	4.2	A39	6878
	3-hydroxy-1-phenyl-1H-1,2,4-triazole	A	282	4.0	A38	6879
		*2	284	4.1	A38	6880

*1 cation *2 KOH/A

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
OC-N ₃ 5-6	5-hydroxy-1-methyl-3-phenyl-1H-1,2,4-triazole	A	269.5	4.1	A38	6881
		*1	223.5 267	4.1 3.9	A38	6882
6-N ₃ 5-6	1,3-diphenyl-1H-1,2,4-triazole	A	265	4.4	A38	6883
	1,5-diphenyl-1H-1,2,4-triazole	A	248	4.1	A38	6884
	3,4-diphenyl-4H-1,2,4-triazole	A	235.5	4.2	A38	6885
6-N ₃ 5-6 C	4-methyl-3,5-diphenyl-4H-1,2,4-triazole	A	251	4.4	A38	6886
	5-methyl-1,3-diphenyl-1H-1,2,4-triazole	A	253	4.3	A38	6887
	3-methyl-1,5-diphenyl-1H-1,2,4-triazole	A	252	4.0	A38	6888
	3-methyl-4,5-diphenyl-4H-1,2,4-triazole	A	232	4.2	A38	6889
6-N ₃ 5-6 O	3-hydroxy-1,5-diphenyl-1H-1,2,4-triazole	A	226 294	4.2 3.8	A38	6890
		*1	230 302	4.2 3.8	A38	6891
6-N ₃ 5-6	1,3,5-triphenyl-1H-1,2,4-triazole	A	244	4.5	A38	6892
	3,4,5-triphenyl-4H-1,2,4-triazole	A	256.5	3.9	A38	6893
6-N ₃ 5-C-C-6 C	3-methyl-1-phenyl-5-styryl-1H-1,2,4-triazole	A	300	4.7	A38	6894
N-N ₃ 5-N6	3-amino-5-pyridyl-1H-1,2,4-triazole	A	272	3.8	A39	6895
		*2	270	3.8	A39	6896
		*3	257	3.9	A39	6897
		*4	236 275	3.9 3.9	A39	6898
C-N ₃ 5:O-6	2,3-dihydro-2-methyl-1-phenyl-1H-1,2,4-triazol-3-one; 2-methyl-1-phenyl-1,2,4-triazol-3-one	A	280	3.9	A38	6899
N ₃ 6	1,3,5-triazine	iO	271	3.0	G38	6900
C ₃ -N ₃ 6	trimethyl-1,3,5-triazine	A	256	2.9	O1	6901
N-N ₃ 6	amino-1,3,5-triazine	W	220 261	4.2 3.3	H69	6902

*1 KOH/A *2 85 mol. excess of HCl *3 420 mol. excess of HCl *4 12,300 mol. excess of HCl

(N₃6)(N₃6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N ₂ -N ₃ 6	diamino-1,3,5-triazine; formoguanamine	A	248-53	3.5	09	6903
		W	<205 258	4.5 3.6	H69	6904
	2-amino-4-anilino-1,3,5-triazine	M	261	4.1	09	6905
		*1	250	4.1	09	6906
	2-amino-4-(p-bromoanilino)-1,3,5-triazine	M	278	4.4	09	6907
	2-acetamido-4-anilino-1,3,5-triazine	M	265	4.2	09	6908
N ₃ -N ₃ 6	triamino-1,3,5-triazine; melamine	W	206	4.9	H69	6909
		W	236	3.4	09	6910
		1.0	236	4.0	09	6911
		10.8	no		K39	6912
	2,4-diamino-6-(methylamino)-1,3,5-triazine	W	<208		H69	6913
	tris(2-hydroxyethylamino)-1,3,5-triazine	W	217	4.7	H69	6914
	2,4-diamino-6-(dimethylamino)-1,3,5-triazine	W	<208		H69	6915
	2-amino-4,6-bis[bis(2-hydroxyethyl)-amino]-1,3,5-triazine	W	230	4.6	H69	6916
	tris(dimethylamino)-1,3,5-triazine	W	216	4.7	H69	6917
N ₂ C-N ₃ 6	2,4-diamino-6-methyl-1,3,5-triazine; acetoguanamine	W	<205 254	4.6 3.5	H69	6918
	2,4-diamino-6-heptadecyl-1,3,5-triazine; stearoguanamine	W	<212 256	4.4 2.6	H69	6919
	2-amino-4-anilino-6-methyl-1,3,5-triazine	M	271	4.3	09	6920
	2-amino-4-anilino-6-(2-methoxyethyl)-1,3,5-triazine	M	270	4.3	09	6921
		*1	263	4.1	09	6922
		*2	269	4.2	09	6923
	2-amino-4-anilino-6-(chloromethyl)-1,3,5-triazine	M	257	4.3	09	6924

*1 1N HCl/W *2 HCl salt/M

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-amino-4-anilino-6-(dichloromethyl)-1,3,5-triazine	M	255	4.3	09	6925
	2-amino-4-anilino-6-(trichloromethyl)-1,3,5-triazine	M	253	4.4	09	6926
	2-amino-4-anilino-6-(1-bromoethyl)-1,3,5-triazine	M	256	4.3	09	6927
	2-amino-4-(p-chloroanilino)-6-methyl-1,3,5-triazine	*1	272	4.2	09	6928
	2-amino-4-(p-bromoanilino)-6-ethyl-1,3,5-triazine	M	277	4.4	09	6929
	2-acetamido-4-anilino-6-(2-methoxyethyl)-1,3,5-triazine	M	227 270	4.4 4.3	09	6930
O ₃ -N ₃ 6	2,4,6-trihydroxy-1,3,5-triazine; cyanuric acid	0.9	no		K39	6931
		7.9	no		K39	6932
		*2	no		K39	6933
	2,4,6-trimethoxy-1,3,5-triazine; methyl cyanurate		no		K39	6934
ON ₂ -N ₃ 6	2-acetoxy-4-amino-6-anilino-1,3,5-triazine	M	243	4.2	09	6935
Cl ₃ -N ₃ 6	trichloro-1,3,5-triazine; cyanuric chloride	M	239	3.3	K39	6936
ClN ₂ -N ₃ 6	2,4-diamino-6-chloro-1,3,5-triazine	*3	<210 256	4.5 3.5	H69	6937
Cl ₂ N-N ₃ 6	2-amino-4,6-dichloro-1,3,5-triazine	W	224 262	4.2 3.3	H69	6938
N ₂ -N ₃ 6-C:C	2-amino-4-anilino-6-vinyl-1,3,5-triazine	M	255	4.4	09	6939
N ₂ -N ₃ 6- $\begin{smallmatrix} \text{C}:\text{O} \\ \text{N} \end{smallmatrix}$	4-amino-6-anilino-1,3,5-triazine-2-carbonhydrazide	M	254	4.3	09	6940
N ₂ -N ₃ 6- $\begin{smallmatrix} \text{C}:\text{O} \\ \text{O} \end{smallmatrix}$	4-amino-6-anilino-1,3,5-triazine-2-carboxylic acid	M	258	4.3	09	6941
	methyl 4-amino-6-anilino-1,3,5-triazine-2-carboxylate	M	257	4.3	09	6942
N ₂ -N ₃ 6-6	2,4-diamino-6-phenyl-1,3,5-triazine	A	244	4.3	09	6943

*1 0.01N HCl/W *2 0.1N NaOH/W *3 cellosolve

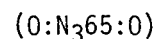
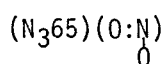
(N₃6:0)(N₃65)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
		*1	255-61	4.2	09	6944
		*2	247	4.3	09	6945
N ₂ -N ₃ 6:O	4(or 6)-amino-6(or 4)-anilino-1,2-dihydro-1,3,5-triazin-2-one	M	265	4.3	09	6946
$\begin{smallmatrix} 6 & & O: \\ 6 & > & O: \\ & & O: \end{smallmatrix} N_3 6:O -6$	perhydro-1,3,5-triphenyl-1,3,5-triazine-2,4,6-trione; triphenylisocyanuric acid	A	255-6	2.9	S30	6947
N ₃ 65	benzotriazole	A	254	3.8	F54	6948
		10	248	3.8	F54	6949
		M	200 253	4.4 3.7	L20	6950
		W	260.5	3.8	M2	6951
		2.0	259	3.8	F54	6952
		7.0	259	3.8	F54	6953
		7.9	274	3.8	F54	6954
		10.0	274	4.0	F54	6955
	1H-imidazo[4,5-b]pyridine; 1H-1,3,7-triazaindene		296		K48	6956
C-N ₃ 65	1-methyl-1H-benzotriazole	A	258	3.8	K57	6957
		W	261	3.9	M2	6958
		*3	274	3.9	S57	6959
		*4	273	4.0	S57	6960
	2-methyl-2H-benzotriazole	M	273	3.9	S57	6961
		*3	274	4.0	S57	6962
C ₂ -N ₃ 65	1,5-dimethyl-1H-benzotriazole	A	258.5 292.5	3.7 3.8	M2	6963
		W	262 291	3.8 3.7	M2	6964
	5,6-dimethyl-1H-benzotriazole	A	260	3.8	B55	6965
		C	260	3.8	B55	6966

*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.1N HCl/W *4 0.1N NaOCH₃/M

(N ₃ 65)		(N ₃ 65)(O:N) O				
system	compound	solv.	λ _{max} .	logε	ref.	no.
N-N ₃ 65	6-amino-1H-imidazo[4,5-b]pyridine; 6-amino-1H-1,3,7-triazaindene		320		K48	6967
O-N ₃ 65	1-hydroxy-1H-benzotriazole	A	267.5	3.7	M2	6968
		W	305	3.8	M2	6969
	1-methoxy-1H-benzotriazole	A	260	3.8	M2	6970
		W	262	3.8	M2	6971
OC-N ₃ 65	1-hydroxy-6-methyl-1H-benzotriazole	A	271.5	3.8	M2	6972
		W	306	3.8	M2	6973
	1-methyl-1H-benzotriazole 3-oxide	A	273 324.5	3.0 3.7	M2	6974
		W	257.5 310.5	3.5 3.9	M2	6975
Cl-N ₃ 65	5-chloro-1H-benzotriazole	5.0	264 281	3.8 3.8	F54	6976
		7.0	281	3.8	F54	6977
		9.4	281	4.0	F54	6978
	6-chloro-1H-imidazo[4,5-b]pyridine; 6-chloro-1H-1,3,7-triazaindene		304		K48	6979
C ₂ -N ₃ 65-C:O C	1-acetyl-5,6-dimethyl-1H-benzotriazole	C	273 305	3.9 3.6	B55	6980
N ₃ 65-N:O O	4-nitro-1H-benzotriazole	*1	315	3.9	M40	6981
		*2	362	3.9	M40	6982
	5-nitro-1H-benzotriazole	*1	236 287	4.2 3.9	M40	6983
		*2	255 315	4.1 3.8	M40	6984
	6-nitro-1H-benzotriazole	A	240.5 290	4.2 3.9	M2	6985
		W	241 292.5	4.0 3.8	M2	6986
C-N ₃ 65-N:O O	1-methyl-5-nitro-1H-benzotriazole	A	244.5 295	4.3 3.8	M2	6987

*1 0.01N HCl/A *2 0.1N NaOC₂H₅/A



system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
		W	247 297	4.3 3.9	M2	6988
	1-methyl-6-nitro-1H-benzotriazole	A	250 290.5	4.2 4.0	M2	6989
		W	250.5 294	4.1 4.0	M2	6990
$O-N_365-N:O$ O	1-hydroxy-6-nitro-1H-benzotriazole	A	247 281	4.1 3.9	M2	6991
		W	274.5 375	4.2 3.6	M2	6992
	1-methoxy-6-nitro-1H-benzotriazole	A	241.5 273	4.2 4.0	M2	6993
		W	244 280	4.2 4.1	M2	6994
$OC-N_365-N:O$ O	1-hydroxy-5-methyl-6-nitro-1H-benzotriazole	A	249	3.9	M2	6995
		W	274.5	4.1	M2	6996
	1-methoxy-5-methyl-6-nitro-1H-benzotriazole	A	245	4.1	M2	6997
		W	249	4.1	M2	6998
	1-methyl-5-nitro-1H-benzotriazole 3-oxide	A	263 349	4.2 3.8	M2	6999
		W	262 338	4.3 3.8	M2	7000
$OC_2-N_365-N:O$ O	1,6-dimethyl-5-nitro-1H-benzotriazole 3-oxide	A	265.5 341.5	4.2 3.8	M2	7001
		W	263 318.5	4.2 3.8	M2	7002
N_365-6	1-phenyl-1H-benzotriazole	A	233 291	4.3 3.9	K57	7003
		H	240 289	4.3 3.9	K57	7004
	2-phenyl-2H-benzotriazole	A	308	4.5	K57	7005
		H	308	4.4	K57	7006
$O:N_365:O$ O_2C	1-hexyl-4,7-dihydro-5,6-dihydroxy-1H-benzotriazole-4,7-dione	*1	468	3.3	W14	7007

*1 50% AA/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	4,7-dihydro-5,6-dihydroxy-1-phenyl-1H-benzotriazole-4,7-dione	*1	477	3.1	W14	7008
C-N ₃ 66:O	1,2-dihydro-3-methyl-1,4,5-triazanaphthalen-2-one		235 353		K48	7009
NC-N ₃ 66:O	6-amino-1,2-dihydro-3-methyl-1,4,5-triazanaphthalen-2-one		238 386		K48	7010
O:N ₃ 66:O	1,2,3,4-tetrahydro-1,3,5-triazanaphthalen-2,4-dione		270 327		K48	7011
N ₃ 625	naphtho[1,2]triazole		248 284	4.6 4.0	A23	7012
OC-N ₃ 63-C:O	ethyl 8-hydroxy-1-methyl-3,4,5-triazaphenanthrene-7-carboxylate	A	277 347	4.1 3.9	M5	7013
N ₃ 635	indolo[2,3-b]quinoxaline	A	270 355 396	4.8 4.3 3.7	C65	7014
N-N ₃ 64	5-(5-isopropylaminopentylamino)pyrido[3,2-a]phenazine	*2	228 270 328	4.4 4.4 4.3	D36	7015

*1 50% AA/W *2 HBr salt/0.1N HCl

PART 41. N₄-AROMATIC CHROMOPHORES

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C ₂ -N ₄ 5	5-cyclohexyl-2-[2-(dimethylamino)ethyl]-tetrazole	*1	no		E13u	7016
		*2	220	4.2	E13u	7017
N-N ₄ 5	5-amino-1H-tetrazole	A	218	3.5	M65	7018
	5-(methylamino)-1H-tetrazole	A	225	3.5	M65	7019
	5-anilino-1H-tetrazole	A	249	4.3	G2	7020
	5-(o-nitroanilino)-1H-tetrazole	A	245 420	4.4 3.8	G2	7021
	5-(m-nitroanilino)-1H-tetrazole	A	252 356	4.4 3.2	G2	7022
	5-(p-nitroanilino)-1H-tetrazole	A	230 357	4.0 4.1	G2	7023
NC-N ₄ 5	5-amino-1-methyl-1H-tetrazole	A	222	3.5	M65	7024
	5-amino-2-methyl-2H-tetrazole	W	241	3.4	H50	7025
	1-methyl-5-(methylamino)-1H-tetrazole	A	227	3.5	M65	7026
		W	232	3.5	H50	7027
	2-methyl-5-(methylamino)-2H-tetrazole	W	256	3.3	H50	7028
		*3	256	3.3	H50	7029
	5-(dimethylamino)-1-methyl-1H-tetrazole	A	232	3.5	M65	7030
N ₄ 5-N:N-O ₂	5-(aci-nitramino)-1H-tetrazole	W	277	4.1	L25	7031
	potassium salt of 5-(aci-nitramino)-1H-tetrazole	W	277	4.1	L25	7032
	anilinium salt of 5-(aci-nitramino)-1H-tetrazole	W	228	4.1	L25	7033
			277	4.3		
	diammonium salt of 5-(aci-nitramino)-1H-tetrazole	W	277	4.0	L25	7034
	bis(diethylammonium) salt of 5-(aci-nitramino)-1H-tetrazole	W	277	4.2	L25	7035
N ₄ 5-6	5-phenyl-1H(?) -tetrazole	A	229	4.0	E14	7036

*1 HCl salt *2 methiodide *3 0.001N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-N ₄ 5-6	5-phenyl-2H(?) -tetrazole	A	240	4.2	G2	7037
	1-methyl-5-phenyl-1H-tetrazole	A	221	4.0	E14	7038
	2-methyl-5-phenyl-2H-tetrazole	A	228	4.0	E14	7039
	2-[2-(dimethylamino)ethyl]-5-phenyl-tetrazole	*1	240	4.2	E13u	7040
		*2	223	4.4	E13u	7041
N-N ₄ 5-6	5-amino-1-phenyl-1H-tetrazole	A	229	3.8	M65	7042
N-N ₄ 5-6-C	5-amino-1-(o-tolyl)-1H-tetrazole	A	230	3.7	M65	7043
	5-amino-1-(m-tolyl)-1H-tetrazole	A	228	4.1	M65	7044
N-N ₄ 5-6-Cl	5-amino-1-(p-chlorophenyl)-1H-tetrazole	A	226	3.7	M65	7045
N-N ₄ 5-6-N ₂ O	5-amino-1-(m-nitrophenyl)-1H-tetrazole	A	225	4.1	M65	7046
	5-amino-1-(p-nitrophenyl)-1H-tetrazole	A	217	3.9	M65	7047
C ₂ -N ₄ 5:N	5-imino-1,3-dimethyltetrazole	*1	254	3.4	H50	7048
		*3	254	3.4	H50	7049
		*4	258 305	3.1 3.0	H50	7050
	5-imino-1,4-dimethyltetrazole	A	260	3.2	M65	7051
		*1	265	3.1	H50	7052
N ₄ 65	1,4-dimethyl-5-(methylimino) tetrazole	A	267	3.0	M65	7053
	purine	0.3	<220 260	4.1 3.8	M18	7054
		5.7	<220 263	3.5 3.9	M18	7055
		11.0	219 271	3.9 3.9	M18	7056
C-N ₄ 65	6-methylpurine	0.0	265	3.9	M18	7057
		5.9	261	3.9	M18	7058
		11.5	271	3.9	M18	7059
	8-methylpurine	0.0	264	3.9	M18	7060

*1 HCl salt/W *2 methiodide *3 0.001N HCl/W *4 0.004N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
		5.9	266	4.0	M18	7061
		12.0	274	3.9	M18	7062
	7-methylpurine	0.2	257.5	3.8	B50	7063
		9.2	266.5	3.9	B50	7064
	9-methylpurine	0.6	262.5	3.8	B50	7065
		8.5	264	3.9	B50	7066
C ₂ -N ₄ 65	5,6-dimethyl-1H-1,3,4,7-tetrazaindene		247 299-303	3.2 4.1	S21	7067
C ₃ -N ₄ 65	2-ethyl-5,6-dimethyl-1H-1,3,4,7-tetraza- indene		247 306	3.2 4.2	S21	7068
N-N ₄ 65	2-aminopurine	1.8	314	3.6	M18	7069
		7.0	305	3.8	M18	7070
		12.0	303	3.8	M18	7071
	6-aminopurine; adenine	2.1	262	4.1	M18	7072
		7.0	260	4.1	M18	7073
		12.0	267	4.1	M18	7074
	8-aminopurine	2.4	288	4.2	M18	7075
		7.0	241 283	3.5 4.2	M18	7076
		12.0	290	4.1	M18	7077
	6-(methylamino)purine	2.0	267	4.2	M18	7078
		7.1	266	4.2	M18	7079
		12.0	273	4.2	M18	7080
	6-(benzylamino)purine	6.0	268	4.2	D3	7081
	6-anilinopurine	6.0	290	4.1	D3	7082
	8-(methylamino)purine	2.7	296	4.2	M18	7083
		7.1	245 290	3.5 4.2	M18	7084
		12.0	298	4.2	M18	7085

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
N ₂ -N ₄ 65	2-(dimethylamino)purine	1.7	228 340	4.5 3.5	M18	7086
		7.0	223 332	4.4 3.7	M18	7087
		12.7	232 327	4.4 3.7	M18	7088
	6-(dimethylamino)purine	1.7	276	4.2	M18	7089
		7.0	275	4.3	M18	7090
		13.0	221 281	4.2 4.3	M18	7091
	6-morpholinopurine	6.0	282	4.3	D3	7092
	8-(dimethylamino)purine	2.7	305	4.3	M18	7093
		7.2	250 296	3.5 4.3	M18	7094
		12.0	306	4.2	M18	7095
	2-hydrazinopurine	1.0	297	3.7	M49	7096
		7.0	309	3.7	M49	7097
	6-hydrazinopurine	1.0	267	4.1	M49	7098
		7.0	262	4.0	M49	7099
	2,6-diaminopurine	3.0	241 282	4.0 4.0	M18	7100
		7.5	246-7 279-80	3.9 4.0	M18	7101
		13.0	284	4.0	M18	7102
	6-amino-2-hydrazinopurine	1.0	267.5	4.0	M49	7103
		7.0	263	4.0	M49	7104
	2-amino-6-hydrazinopurine	1.0	238 284.5	3.9 3.9	M49	7105
		7.0	240 283	3.9 3.9	M49	7106
	2,6-dihydrazinopurine	1.0	275.5	3.9	M49	7107
		7.0	272.5	3.8	M49	7108

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
N ₃ -N ₄ 65	2,6,8-triaminopurine	0.3	248 305	4.1 4.1	M18	7109
		4.3	221 299	4.3 4.2	M18	7110
		8.5	249 293	3.8 4.1	M18	7111
		13.0	226 295	4.3 4.1	M18	7112
NC-N ₄ 65	6-amino-7-methylpurine	W	269	4.2	F1	7113
		*1	269	4.2	F1	7114
		*2	269	4.1	F1	7115
	6-amino-9-methylpurine	W	260	4.2	F1	7116
		*1	260	4.2	F1	7117
		*2	260	4.2	F1	7118
	6-amino-9-(D-ribofuranosyl)purine; adenosine	W	262	4.2	F1	7119
		*1	262	4.2	F1	7120
		*2	262	4.2	F1	7121
	6-amino-9-benzylpurine	6.0	260	4.2	D3	7122
O-N ₄ 65	2-methoxypurine	0.0	284	3.8	M18	7123
		6.0	283	3.9	M18	7124
		11.4	283	3.9	M18	7125
	6-methoxypurine	0.2	254	4.0	M18	7126
		5.6	252-3	4.0	M18	7127
		11.3	261	4.0	M18	7128
ON-N ₄ 65	6-amino-2-methoxypurine	5.6	268	3.9	B58	7129
		8.6	268	3.9	B58	7130
		12.0	275	3.9	B58	7131
S-N ₄ 65	2-mercaptapurine	-1.2	227-32 287 382	3.9 4.3 3.3	M18	7132

*1 0.05N HCl/W *2 0.05N NaOH/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
		5.0	241 285-6 345-8	4.1 4.3 3.2	M18	7133
		8.8	235 263 328	4.1 4.2 3.5	M18	7134
	6-mercaptopurine	-3.5	225 324	3.8 4.2	M18	7135
		5.1	225 325	3.9 4.3	M18	7136
		9.3	228 312	4.0 4.2	M18	7137
	8-mercaptopurine	-3.5	238 331	4.2 4.3	M18	7138
		4.5	231 310	4.0 4.5	M18	7139
		8.9	228 313	4.1 4.4	M18	7140
		13.0	230 315	4.2 4.3	M18	7141
	2-methylthiopurine	0.0	241-2 314	4.1 3.6	M18	7142
		5.9	232 305	4.2 3.8	M18	7143
		11.6	240 300-2	4.3 3.8	M18	7144
	6-methylthiopurine	-3.5	222 313	4.1 4.4	M18	7145
		5.8	290	4.4	M18	7146
		11.2	229 290	4.3 4.3	M18	7147
	8-methylthiopurine	0.0	232 305	4.0 4.3	M18	7148
		5.1	246 290	3.6 4.3	M18	7149
		9.9	220 296	4.2 4.3	M18	7150

(N₄65)(N₄65)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S ₂ -N ₄ 65	2,6-dimercaptopurine	10.4	254 346	4.3 4.1	B45	7151
SN-N ₄ 65	6-mercapto-2-(methylamino)purine	*1	261 350	4.1 4.3	E13	7152
		11.0	245 275 325	4.0 4.0 4.1	E13	7153
	2-anilino-6-mercaptapurine	*1	278 352	4.2 4.3	E13	7154
		11.0	245 283 328	4.1 4.5 4.1	E13	7155
	2-(dimethylamino)-6-mercaptapurine	*1	268 358	4.1 4.2	E13	7156
		11.0	253 283 322	4.1 4.1 4.0	E13	7157
	6-mercapto-2-piperidinopurine	*1	272 359	4.2 4.2	E13	7158
		11.0	257 282 328	4.1 4.0 4.0	E13	7159
	2-amino-6-methylthiopurine	1.0	241 273 317	3.8 4.0 4.1	M49	7160
		7.0	242 309	4.1 4.0	M49	7161
		13.0	228 313	4.3 4.0	M49	7162
Cl-N ₄ 65	6-chloropurine	5.5	265	4.0	M18	7163
		10.0	274	3.9	M18	7164
Cl ₃ -N ₄ 65	2,6,8-trichloropurine	W	283	4.0	F51	7165
ClN-N ₄ 65	6-amino-2-chloropurine	1.0	266	4.1	M49	7166
		7.0	266	4.1	M49	7167
	2-chloro-6-hydrazinopurine	1.0	267	4.0	M49	7168

*1 0.1N HCl/W

(N₄65)(N₄65:0)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
		7.0	271	4.0	M49	7169
ClO ₂ -N ₄ 65	8-chloro-2,6-diethoxypurine	W	235 269	3.8 4.0	F51	7170
N ₄ 65-6	8-phenylpurine	0.0	237 304	4.1 4.4	M18	7171
		5.4	231 298	4.1 4.4	M18	7172
		10.3	233 304	4.2 4.4	M18	7173
N-N ₄ 65-6	2-amino-8-phenylpurine	1.0	257 332	4.4 4.1	M18	7174
		6.5	238 329	4.2 4.3	M18	7175
		11.4	239 330	4.3 4.3	M18	7176
	6-amino-9-phenylpurine	6.0	260	4.1	D3	7177
N ₄ 65:0	1,2(or 2,3)-dihydro-2-purinone; 2-hydroxypurine	-0.8	264 322	3.7 3.8	M18	7178
		6.0	238 315	3.5 3.7	M18	7179
		10.1	271 313	3.7 3.7	M18	7180
	1,6-dihydro-6-purinone; 6-hydroxypurine; hypoxanthine	-0.8	248	4.0	M18	7181
		5.2	249	4.0	M18	7182
		10.3	258	4.1	M18	7183
	7,8(or 8,9)dihydro-8-purinone; 8-hydroxypurine	0.0	280	4.0	M18	7184
		5.4	235 277	3.5 4.1	M18	7185
		10.1	285	4.1	M18	7186
C-N ₄ 65:0	1,6-dihydro-7-methyl-6-purinone; 7-methylhypoxanthine	*1	250	4.0	G41	7187
		*2	261	4.0	G41	7188

*1 0.05N HCl/W *2 0.05N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N-N ₄ 65:0	1,6-dihydro-9-methyl-6-purinone; 9-methylhypoxanthine	*1	248	4.0	G41	7189
		*2	255	4.1	G41	7190
	9-benzyl-1,6-dihydro-6-purinone; 9-benzylhypoxanthine	6.0	247	4.2	D3	7191
	6-amino-1,2(or 2,3)-dihydro-2-purinone; 6-amino-2-hydroxypurine; isoguanine	2.0	284	4.0	M18	7192
		7.0	240 286	3.9 3.9	M18	7193
		11.1	284	4.1	M18	7194
	2-amino-1,6-dihydro-6-purinone; 2-amino-6-hydroxypurine; guanine	1.0	248 271	4.0 3.9	M18	7195
		6.2	246 275	4.0 3.9	M18	7196
		10.7	245 273	3.8 3.9	M18	7197
		13.0	221 274	4.1 3.9	M18	7198
	6-amino-7,8(or 8,9)-dihydro-8-purinone; 6-amino-8-hydroxypurine	2.3	272	3.6	C20	7199
		6.5	270	3.6	C20	7200
		9.2	270	3.6	C20	7201
	1,6-dihydro-2-(methylamino)-6-purinone; 2-(methylamino)-6-hydroxypurine	*3	250 280	4.1 3.8	E13	7202
		11.0	245 279	3.9 3.9	E13	7203
	2-anilino-1,6-dihydro-6-purinone; 2-anilino-6-hydroxypurine	*3	270	4.3	E13	7204
		11.0	238 274	4.2 4.3	E13	7205
	2-(p-chloroanilino)-1,6-dihydro-6-purinone; 2-(p-chloroanilino)-6-hydroxypurine	*3	274	4.3	E13	7206
		11.0	240 280	4.2 4.3	E13	7207
	2-(dimethylamino)-1,6-dihydro-6-purinone; 2-(dimethylamino)-6-hydroxypurine	*3	258	4.2	E13	7208
		11.0	277	3.9	E13	7209

*1 0.05N HCl/W *2 0.05N NaOH/W *3 0.1N HCl/W

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
N ₂ -N ₄ 65:0	1,6-dihydro-2-piperidino-6-purinone; 6-hydroxy-2-piperidinopurine	*1	260	4.3	E13	7210
		11.0	252	4.1	E13	7211
	2-hydrazino-1,6-dihydro-6-purinone; 2-hydrazino-6-hydroxypurine	*1	248	4.0	M49	7212
		11.0	248	4.0	M49	7213
	6,8-diamino-1,2(or 2,3)-dihydro-2- purinone; 6,8-diamino-2-hydroxypurine	2.3	302	4.1	C20	7214
		6.5	298	4.1	C20	7215
		9.2	295	4.1	C20	7216
	2,8-diamino-1,6-dihydro-6-purinone; 2,8-diamino-6-hydroxypurine	2.3	247 287	4.1 3.9	C20	7217
		6.5	291	4.0	C20	7218
		9.2	290	4.0	C20	7219
	2,6-diamino-7,8(or 8,9)-dihydro-8- purinone; 2,6-diamino-8-hydroxypurine	2.3	250 305	3.9 4.0	C20	7220
		6.5	246 287	3.9 4.0	C20	7221
		9.2	289	4.0	C20	7222
NC-N ₄ 65:0	2-amino-1,6-dihydro-8-methyl-6-purinone; 2-amino-8-methyl-6-hydroxypurine	1.0	250 278	4.0 3.9	H70	7223
		11.0	275	3.9	H70	7224
	2-amino-1,6-dihydro-7-methyl-6-purinone; 2-amino-7-methyl-6-hydroxypurine	W	246 282	3.8 3.9	G39	7225
		*2	250	4.0	G39	7226
		*3	281	3.9	G39	7227
	2-amino-1,6-dihydro-9-methyl-6-purinone; 2-amino-9-methyl-6-hydroxypurine	W	253	4.1	G39	7228
		*2	254	4.1	G39	7229
		*3	264	4.0	G39	7230
	2-amino-1,6-dihydro-9-D-ribosyl-6- purinone; 2-amino-9-D-ribosyl-6- hydroxypurine; guanosine	W	252	4.1	S74u	7231
		*4	256	4.0	S74u	7232
		*5	262	4.0	S74u	7233

*1 0.1N HCl/W *2 0.5N HCl/W *3 0.5N NaOH/W *4 acid *5 alkaline

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
NC ₂ -N ₄ 65:0	2-amino-1,6-dihydro-1,7-dimethyl-6-purinone; 2-amino-6-hydroxy-1,7-dimethylpurine	*1	250 281	3.8 3.8	M11	7234
	2-amino-1,6-dihydro-1-methyl-9(?) -propyl-6-purinone; 2-amino-6-hydroxy-1-methyl-9(?) -propylpurine	*1	257	4.0	M11	7235
O-N ₄ 65:0	1,6-dihydroxy-2-methoxy-6-purinone; 6-hydroxy-2-methoxypurine	1.1	243.5	4.0	B58	7236
		6.9	263	4.0	B58	7237
		13.0	267	4.0	B58	7238
S-N ₄ 65:0	1,2(or 2,3)-dihydro-6-mercapto-2-purinone; 2-hydroxy-6-mercaptapurine	10.4	249 340	3.9 4.3	B45	7239
	1,6-dihydro-2-mercapto-6-purinone; 6-hydroxy-2-mercaptapurine	*2	285	4.3	E13	7240
		11.0	278	4.2	E13	7241
	1,6-dihydro-2-methylthio-6-purinone 6-hydroxy-2-methylthiopurine	*2	265	4.3	E13	7242
		11.0	270	4.2	E13	7243
Cl-N ₄ 65:0	2-chloro-1,6-dihydro-6-purinone; 2-chloro-6-hydroxypurine	1.0	250	4.0	E13	7244
		7.0	257	4.0	E13	7245
		13.0	265	4.1	E13	7246
Cl ₂ -N ₄ 65:0	2,6-dichloro-7,8(or 8,9)-dihydro-8-purinone; 2,6-dichloro-8-hydroxypurine	W	247.5 287.5	3.7 4.0	F51	7247
N ₄ 65:0 -6	1,6-dihydro-9-phenyl-6-purinone; 6-hydroxy-9-phenylpurine	6.0	227	4.3	D3	7248
O:N ₄ 65:0	1,2,3,6-tetrahydro-2,6-purinedione; xanthine; 2,6-dihydroxypurine	5.1	267	3.9	M18	7249
		10.0	240 277	3.9 3.9	M18	7250
		13.0	283	3.9	M18	7251
	2,3,8,9-tetrahydro-2,8-purinedione; 2,8-dihydroxypurine	5.1	310	3.7	M18	7252
		10.0	262 306	4.0 3.9	M18	7253
		13.0	220 310	4.2 4.0	M18	7254

*1 sulfate in W *2 0.1N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:N ₄ 65:O C	1,6,8,9-tetrahydro-6,8-purinedione; 6,8-dihydroxypurine	5.1	257	4.1	M18	7255
		8.7	265	4.0	M18	7256
		12.0	271	4.1	M18	7257
	1,2,3,6-tetrahydro-1-methyl-2,6-purine- dione	5.0	266	4.0	G40	7258
		10.0	241 276	3.9 3.9	G40	7259
	1,2,3,6-tetrahydro-3-methyl-2,6-purine- dione	5.0	271	4.0	G40	7260
		10.0	273	4.1	G40	7261
	1,2,3,6-tetrahydro-7-methyl-2,6-purine- dione	5.0	269	4.0	G40	7262
		10.0	290	4.0	G40	7263
	1,2,3,6-tetrahydro-9-methyl-2,6-purine- dione	5.0	238 264	3.9 3.9	G40	7264
		10.0	247 278	3.9 3.9	G40	7265
	1,2,3,6-tetrahydro-9-ribofuranosido- purine; xanthosine	5.0	238 264	3.9 3.9	G40	7266
O:N ₄ 65:O C ₂		10.0	247 278	3.9 3.9	G40	7267
	1,2,3,6-tetrahydro-1,3-dimethyl-2,6- purinedione; theophylline	6.4	270	4.0	T17n	7268
	1,2,3,6-tetrahydro-1,7-dimethyl-2,6- purinedione	W	268	4.0	M11	7269
		*1	267	4.1	M11	7270
O:N ₄ 65:O C ₃		*2	289	4.0	M11	7271
	1,2,3,6-tetrahydro-1,3,7-trimethyl-2,6- purinedione; caffeine	3.0	275	4.0	L29	7272
		7.0	274	4.0	L29	7273
		11.0	274	4.0	L29	7274
	1,2,3,6-tetrahydro-1,3,9-trimethyl-2,6- purinedione; isocaffeine	5.0	267	4.0	G40	7275
		10.0	269	4.0	G40	7276
	1,7-diethyl-1,2,3,6-tetrahydro-8-methyl- 2,6-purinedione	W	272	4.0	M11	7277

*1 0.01N HCl/W *2 0.01N NaOH/W

(O:N₄65:O)(O:N₄65:O)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
O: N ₄ 65:O N		*1	269	4.0	M11	7278
		*2	290	4.0	M11	7279
	7-D-glucosido-1,2,3,6-tetrahydro-1,3-dimethyl-2,6-purinedione;	5.0	274	3.9	G40	7280
	theophylline-D-glucoside	10.0	274	4.0	G40	7281
	8-amino-1,2,3,6-tetrahydro-2,6-purine-dione; 8-amino-2,6-dihydroxypurine	2.3	233 285	3.9 4.1	C20	7282
		6.5	288	4.2	C20	7283
		9.2	290	4.1	C20	7284
	6-amino-1,2,8,9-tetrahydro-2,8-purine-dione; 6-amino-2,8-dihydroxypurine	2.3	232 304	3.9 4.2	C20	7285
		6.5	236 303	3.9 4.2	C20	7286
		9.2	302	4.3	C20	7287
	2-amino-1,6,8,9-tetrahydro-6,8-purine-dione; 2-amino-6,8-dihydroxypurine	2.3	292	3.9	C20	7288
		6.5	245 285	3.9 3.9	C20	7289
		9.2	245	3.9	C20	7290
	1,2,3,6-tetrahydro-8-methoxy-1,3,7-trimethyl-2,6-purinedione		280	4.1	A11	7291
O: N ₄ 65:O O:	perhydro-2,6,8-purinetri- one; 2,6,8-trihydroxypurine; uric acid	2.3	231 283	3.9 4.1	C20	7292
		6.5	235 291	4.0 4.1	C20	7293
		9.2	235 292	4.0 4.1	C20	7294
O: N ₄ 65:O O: C	perhydro-1-methyl-2,6,8-purinetri- one	*3	260	4.0	F2	7295
		*4	260 295	4.0 3.9	F2	7296
	perhydro-3-methyl-2,6,8-purinetri- one	*3	234 291	3.9 4.0	F2	7297
		*4	291	4.0	F2	7298




*1 0.01N HCl/W *2 0.01N NaOH/W *3 0.05N HCl/W *4 0.05N NaOH/W

(0:N₄65:0)
(0:N₄65:0)(N₄66)

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
O: O: C ₄ N-N ₄ 66	perhydro-7-methyl-2,6,8-purinetri- one	W	246 290	3.9 4.0	F2	7299
		*1	245 296	3.9 4.0	F2	7300
		*2	297	4.0	F2	7301
	perhydro-9-methyl-2,6,8-purinetri- one	W	238 292	3.8 3.9	F2	7302
		*1	237 297	3.8 3.9	F2	7303
		*2	252 300	4.0 3.9	F2	7304
	perhydro-1,3,7,9-tetramethyl-2,6,8- purinetri- one		240 293	3.8 4.0	F51	7305
	2-(methylamino)pteridine	W	229 273 388	4.4 4.0 3.8	A14	7306
	4-(dimethylamino)pteridine	W	241 362	4.2 3.9	A14	7307
O-N ₄ 66		*3	239 347	4.2 4.1	A14	7308
	4-amino-4-deoxypteroylglutamic acid	*4	259 370		C101	7309
	2-methoxypteridine	W	<220 325	4.0 3.9	A14	7310
	4-methoxypteridine	W	225 304	4.3 3.9	A14	7311
		cH	226 306	4.2 3.9	A14	7312
Cl-N ₄ 66	6-methoxypteridine	W	<220 315	4.1 3.8	A14	7313
	2-chloropteridine	cH	<220 322 378	4.1 4.0 2.1	A14	7314
	4-chloropteridine	cH	220 303	4.2 3.9	A14	7315

*1 0.05N HCl/W *2 0.05N NaOH/W *3 acid *4 0.1N NaOH/W

(N₄66:0)(O:N₄66:0)

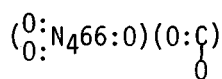
system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
C-N ₄ 66:O	3,4-dihydro-3-methyl-4-pteridinone	W	233 312	4.1 3.8	A14	7316
N-N ₄ 66:O	2-amino-3,4-dihydro-4-pteridinone; 2-amino-4-hydroxypteridine	W	270 340	4.1 3.8	A14	7317
		0.0	<220 315	4.1 3.9	A14	7318
		13.0	251 358	4.3 3.8	A14	7319
NC-N ₄ 66:O	3'-methylpteroylglutamic acid	*1	255 285 365		C101	7320
N ₂ -N ₄ 66:O 	2-amino-7,8-dihydro-4-(methylamino)- 7-oxo-6-pteridinecarboxylic acid	1.0	263 360	4.1 4.2	E11	7321
		11.0	265 362	4.2 4.2	E11	7322
N ₂ C-N ₄ 66:O 	2,4-diamino-7,8-dihydro-8-methyl-7-oxo- 6-pteridinecarboxylic acid	1.0	300 380	3.9 4.2	E11	7323
		11.0	265 370	4.1 4.2	E11	7324
	ethyl 2,4-diamino-7,8-dihydro-8-methyl- 7-oxo-6-pteridinecarboxylate	1.0	300 372	4.0 4.3	E11	7325
		11.0	272 387	4.2 4.3	E11	7326
	2-amino-7,8-dihydro-8-methyl-4-(methyl- amino)-7-oxo-6-pteridinecarboxylic acid	1.0	268 386	4.0 4.2	E11	7327
		11.0	270 379	4.2 4.2	E11	7328
	2-amino-3,4,5,6-tetrahydro-4,6- pteridinedione; xanthopterin	W	275 385	4.1 3.4	A14	7329
		*2	245 355	4.1 3.8	A14	7330
O:N ₄ 66:O 		13.0	255 392	4.3 3.9	A14	7331
		M	255 342	4.4 4.1	H78	7332
	2-amino-3,4,7,8-tetrahydro-4,7- pteridinedione; isoxanthopterin					

*1 0.1N NaOH/W *2 70% H₂SO₄

(O:N₄66:O)(O:N₄66:O)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	253 340	3.9 4.0	M21	7333
O:N ₄ 66:O NC	2-amino-3,4,7,8-tetrahydro-6-methyl-4,7-pteridinedione; 2-amino-4,7-dihydroxy-6-methylpteridine	*1	255 341	4.1 4.1	M21	7334
	2-amino-3,4,7,8-tetrahydro-8-(2-hydroxyethyl)-4,7-pteridinedione; 2-amino-7,8-dihydro-4-hydroxy-8-(2-hydroxyethyl)-7-pteridinone	1.0	262 290 345	3.7 3.8 4.0	E11	7335
		11.0	258 357	3.9 4.0	E11	7336
O:N ₄ 66:O C:O N O	2-amino-3,4,7,8-tetrahydro-4,7-dioxo-6-pteridinecarboxylic acid; 2-amino-4,7-dihydroxy-6-pteridinecarboxylic acid	*1	259 350	3.9 4.0	M21	7337
O:N ₄ 66:O C:O NC O	2-amino-3,4,7,8-tetrahydro-8-(2-hydroxyethyl)-4,7-dioxo-6-pteridinecarboxylic acid; 2-amino-7,8-dihydro-4-hydroxy-8-(2-hydroxyethyl)-7-oxo-6-pteridinecarboxylic acid	1.0	268 382	3.9 4.4	E11	7338
		11.0	262 367	4.1 4.2	E11	7339
	ethyl 2-amino-3,4,7,8-tetrahydro-8-(2-hydroxyethyl)-4,7-dioxo-6-pteridinecarboxylate; ethyl 2-amino-7,8-dihydro-4-hydroxy-8-(2-hydroxyethyl)-7-oxo-6-pteridinecarboxylate	1.0	270 292 378	3.9 3.9 4.4	E11	7340
		11.0	265 380	4.2 4.3	E11	7341
O:N ₄ 66:O -6 N	2-amino-3,4,7,8-tetrahydro-6-phenyl-4,7-pteridinedione; 2-amino-6-phenyl-4,7-pteridinediol		237 365		K48	7342
O:N ₄ 66:O O:	1,2,3,4,7,8-hexahydro-2,4,8-pteridine-trione; 2,4,8-pteridinetriol	*1	260 314	4.0 3.7	F34	7343
O:N ₄ 66:O O: C	1,2,3,4,7,8-hexahydro-6-methyl-2,4,8-pteridinetrione; 6-methyl-2,4,8-pteridinetriol	*1	250 260 280 335	3.9 3.9 3.9 4.2	M21	7344
O:N ₄ 66:O O: N	2-amino-3,4,5,6,7,8-hexahydro-4,6,7-pteridinetrione; 2-amino-4,6,7-pteridinetriol	W	240 285 340	4.2 3.8 4.0	A14	7345
		*1	240 285 342	4.2 3.8 4.0	W36	7346

*1 0.1N NaOH/W



(N₄6₃5)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{N}_4\text{66}:\text{O} \\ \vdots \\ \text{O} \end{array} \quad \begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{C} \\ \vdots \\ \text{O} \end{array}$	1,2,3,4,7,8-hexahydro-1-methyl-2,4,7-trioxo-6-pteridinecarboxylic acid; 1,2-dihydro-4,7-dihydroxy-1-methyl-2-oxo-6-pteridinecarboxylic acid	*1	257 347	4.1 4.2	M21	7347
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{N}_4\text{66}:\text{O} \\ \vdots \\ \text{O} \end{array}$	perhydro-2,4,6,7-pteridinetetrone; 2,4,6,7-pteridinetetrol	W	236 283 347	4.3 3.9 4.0	A14	7348
	perhydro-1,3,5,7-tetrazanaphthalene-2,4,6,8-tetrone; 1,3,5,7-tetrazanaphthalene-2,4,6,8-tetrol	*2	229 324	4.3 4.1	F34	7349
		8.2	232 325	4.3 3.8	F34	7350
		11.5	230 325	4.4 3.8	F34	7351
		*1	227 326	4.4 3.7	F34	7352
N ₄ 665	1H-imidazo[b]quinoxaline		244 330	4.5 4.2	S20	7353
C-N ₄ 665	2-methyl-1H-imidazo[b]quinoxaline		244 330	4.2 3.9	S20	7354
	4-methyl-4H-imidazo[b]quinoxaline		247 329	4.3 4.2	S20	7355
C ₂ -N ₄ 665	2-isopropyl-6-methyl-1H-imidazo[b]-quinoxaline		249	4.4	S20	7356
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{N}_4\text{63}:\text{O} \\ \vdots \\ \text{O} \end{array}$	1,2,3,4-tetrahydrobenzopteridine-2,4-dione; benzopteridine-2,4-diol	*3	264 334 420	4.0 3.2 3.2	K61	7357
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{N}_4\text{63}:\text{O} \\ \vdots \\ \text{C}_2 \end{array}$	1,2,3,4-tetrahydro-1,3-dimethylbenzopteridine-2,4-dione	A	221 322 376	3.9 3.2 3.2	K61	7358
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O}:\text{N}_4\text{63}:\text{O} \\ \vdots \\ \text{C}_3 \end{array}$	lactoflavin	W	220 265 365 445	4.9 4.9 4.3 4.4	K69n	7359
	riboflavin	*1	270 355	4.5 4.1	F2n	7360
N ₄ 6 ₃ 5	tetrazolo[f]-5,6-phenanthroline nitrate	A	625		J10n	7361

*1 0.1N NaOH/W *2 40% H₂SO₄/W *3 2N NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C-N ₄ 6 ₃ 5	2-methyltetrazolo[f]-5,6-phenanthroline nitrate	A	610		J10n	7362
N ₄ 6 ₃ 5-6	2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	500 660		J10n	7363
O-N ₄ 6 ₃ 5-6	6-methoxy-2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	650		J10n	7364
Cl-N ₄ 6 ₃ 5-6	7-chloro-2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	690		J10n	7365
Cl ₂ -N ₄ 6 ₃ 5-6	6,11-dichloro-2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	505 680		J10n	7366
Cl ₄ -N ₄ 6 ₃ 5-6	6,7,10,11-tetrachloro-2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	538 570		J10n	7367
6-N ₄ 6 ₃ 5-C(=O) O	7-ethoxycarbonyl-2-phenyltetrazolo[f]-5,6-phenanthroline nitrate	A	715		J10n	7368
N ₄ 6 ₅	5,8,13,14-tetrazapentaphene	A	242 339	4.7 4.7	C87	7369
		*1	247 348	4.7 4.6	C87	7370

*1 3.2N HCl/A

PART 42. OTHER AROMATIC CHROMOPHORES WITH N HETERO-ATOMS

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₂ -N ₅ 65	5,7-dimethyltetrazolo[a]pyrimidine	A	261	3.6	N1	7371
		*1	265	3.7	N1	7372
		*2	321	4.1	N1	7373
N-N ₅ 65	7-amino-1,2,3-triazolo[d]pyrimidine	2.0	265	3.7	C21	7374
		6.5	265	3.8	C21	7375
		8.8	265	3.8	C21	7376
N ₂ -N ₅ 65	5,7-diamino-1,2,3-triazolo[d]pyrimidine	2.0	252	4.1	C21	7377
		6.5	251 282	3.9 4.0	C21	7378
		8.2	250 289	3.8 3.9	C21	7379
N ₂ -N ₅ 65-6	5,7-diamino-2-phenyl-1,2,3-triazolo[d]-pyrimidine	*3	259.5 339	4.1 4.5	H14	7380
		*4	262 333	3.7 4.4	H14	7381
		*5	329.5	4.3	H14	7382
N ₂ -N ₅ 65-6-C(=O) O	5,7-diamino-2-(p-carboxyphenyl)-1,2,3-triazolo[d]pyrimidine	*3	339	4.3	H14	7383
N-N ₅ 65:O	7-amino-4,5(or 5,6)-dihydro-1,2,3-triazolo[d]pyrimidin-5-one; 7-amino-1,2,3-triazolo[d]pyrimidin-5-ol	2.1	277	3.4	C21	7384
		6.7	277	4.0	C21	7385
		8.6	277	4.0	C21	7386
	5-amino-6,7-dihydro-1,2,3-triazolo[d]pyrimidin-7-one; 5-amino-1,2,3-triazolo[d]pyrimidin-7-ol	2.0	247	3.9	C21	7387
		6.6	247	3.9	C21	7388
		8.4	274	3.8	C21	7389
N ₅ 65:O -6 N	5-amino-6,7-dihydro-2-phenyl-1,2,3-triazolo[d]pyrimidin-7-one; 5-amino-2-phenyl-1,2,3-triazolo[d]pyrimidin-7-ol	*6	230	4.4	B54	7390

*1 0.01N HCl/W
*6 0.1N NaOH/W

*2 0.01N NaOH/W

*3 conc. H₂SO₄

*4 85% H₃PO₄/W

*5 3N NaOH/W

(N₅65:0)(6)(0:C)(N₅65)

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
$\text{N}_5\text{65:0} \begin{array}{c} \text{N} \end{array} \text{---} \begin{array}{c} \text{N} \end{array} \text{---} \text{C:O}$	p-(5-amino-6,7-dihydro-7-oxo-1,2,3-triazolo[d]pyrimidin-2-yl)benzoyl-glutamic acid; p-(5-amino-7-hydroxy-1,2,3-triazolo[d]pyrimidin-2-yl)-benzoylglutamic acid	*1	229	4.3	B54	7391
$\text{N}_5\text{65:0} \begin{array}{c} \text{N} \end{array} \text{---} \begin{array}{c} \text{O} \end{array} \text{---} \text{C:O}$	5-amino-2-(p-carboxyphenyl)-6,7-dihydro-1,2,3-triazolo[d]pyrimidin-7-one; 5-amino-2-(p-carboxyphenyl)-1,2,3-triazolo[d]pyrimidin-7-ol	*1	225	4.3	B54	7392
$\text{O:N}_5\text{65:O}$	4,5,6,7-tetrahydro-1,2,3-triazolo[d]-pyrimidine-5,7-dione; 1,2,3-triazolo[d]pyrimidine-5,7-diol	2.0	265	3.8	C21	7393
		6.5	265	3.8	C21	7394
		*1	234 285	3.7 3.7	C21	7395
$\text{N}_5\text{65}$	5,6,8,13,14-pentazapentaphene	C	265 352	4.5 4.4	C87	7396
		*2	340-55	4.5	C87	7397

*1 0.1N NaOH/W *2 0.17N HCl/C

PART 43. AROMATIC CHROMOPHORES WITH P OR As HETERO-ATOM(S)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
0-P665:0	o-biphenylylenephosphinic acid 9-hydroxy-9-phosphafluorene 9-oxide	A	232.5	4.5	F42	7398
0-As665:0	o-biphenylylenearsinic acid; 9-hydroxy-9-arsafluorene 9-oxide	A	232.5	4.5	F41	7399

PART 44. (O5)- AND (X:O5:X)-CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O5	furan	H	200 252	4.0 0.0	M30	7400
		M	230 290	4.6 1.4	M6	7401
		W	<220		R2	7402
C-O5	2-(aminomethyl)furan; furfuryl amine	cH	218.5 270		S2g	7403
	2-(hydroxymethyl)furan; furfuryl alcohol	M	215 269		S2g	7404
		W	228 282.5	3.3 4.2	M6	7405
	2-(acetoxymethyl)furan; furfuryl acetate	M	no		S2g	7406
C ₂ -O5	2,5-dimethylfuran	A	218 265	4.4 4.1	K30	7407
	2,5-bis(hydroxymethyl)furan		223-40	4.0	T18	7408
Hg-O5	2-(chloromercuri)furan	A	232	3.9	L6	7409
	di-2-furylmercury	A	252	4.2	L6	7410
O5-C:C	2-vinylfuran	A	260	4.2	H87	7411
		C	266-8	3.8	L0n	7412
O5-C:C-C	4-(2-furyl)-3-buten-2-ol	A	265	4.3	B119	7413
O5-C:N-N	2-furaldehyde 2,4-dinitrophenylhydrazone	A	227 256 300 390	4.2 4.1 3.9 4.4	B120	7414
		C	258 302 388	4.3 4.0 4.4	B120	7415
		*1	270 475		J26	7416
	2-furaldehyde semicarbazone	W	290	4.4	R2	7417
	2-furaldehyde syn-oxime	W	270	4.2	R1	7418

*1 0.2N NaOH/A+C(9:1)

(05)(N:C)

(05)(O:C)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-furaldehyde anti-oxime	W	265	4.3	R1	7419
C-05-C:N-N	5-methyl-2-furaldehyde 2,4-dinitro-phenylhydrazone	C	267 302 389	4.4	J26	7420
		*1	278 478	4.4	J26	7421
	5-methyl-2-furaldehyde semicarbazone	W	300	4.4	R2	7422
Br-05-C:N-N	5-bromo-2-furaldehyde semicarbazone	W	300	4.4	R2	7423
$\begin{array}{c} \text{O5} \\ \text{O-N:C} \end{array} \begin{array}{c} \text{C:N-O} \\ \text{O5} \end{array}$	2-furil dioxime nickel	*2	480		Y0n	7424
05-C:N-N:C-O5	di-2-furfurylidenehydrazine; 2-furaldehyde azine	A	335	4.6	B77	7425
		D	334	4.6	B76	7426
05-C:C-C:N-N	3-(2-furyl)acrylaldehyde 2,4-dinitro-phenylhydrazone	C	322 400	4.6	J26	7427
		*1	310 490	4.6	J26	7428
05-C:C-C:N-N C	4-(2-furyl)-3-buten-2-one 2,4-dinitro-phenylhydrazone	C	319 405	4.5	J26	7429
		*1	300 490	4.5	J26	7430
(05) ₂ (N:C) ₂ (C:C) ₂	bis[3-(2-furyl)allylidene]hydrazine	D	378	4.8	B76	7431
(05) ₂ (N:C) ₂ (C:C) ₄	bis[5-(2-furyl)-2,4-pentadienylidene]-hydrazine	D	398 413	4.9 4.9	B76	7432
(05) ₂ (N:C) ₂ (C:C) ₆	bis[7-(2-furyl)-2,4,6-heptatrienylidene]hydrazine	D	300 430 444	4.2 5.0 5.0	B76	7433
$\begin{array}{c} \text{O-05-C:C} \\ \text{C:N} \end{array} \begin{array}{c} \text{6} \\ \text{C:N} \end{array}$	3-(2-furyl)-3-methoxy-2-phenylacrylonitrile	A	315	4.3	R41	7434
05-C:O	furaldehyde	A	270 313	4.2 1.8	B76	7435
		W	230 277.5	3.4 4.2	M6	7436
05-C:O C	2-acetylfuran	W	225 275	3.5 4.1	R2	7437


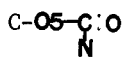

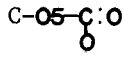
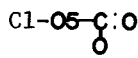
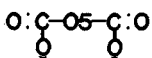
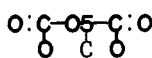
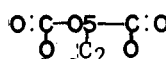
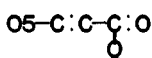
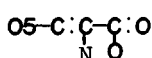
*1 0.2N NaOH/A+C(9:1) *2 suspension

(05)(0:C)

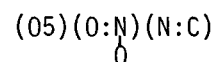
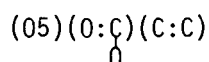
(05)₂(0:C)₂(C:C)₆

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
C-05-C:O	5-(hydroxymethyl)furaldehyde	W	230 284	3.5 4.2	T18	7438
O-05-C:O	5-formyl-2-furyl ether	W	230 282.5	3.8 4.5	M6	7439
O:C-05-C:O	2,5-diformylfuran	W	290	4.2	R2	7440
(05) ₂ (0:C) ₂	di(2-furyl)ethanedione; 2-furil	W	227.5 302.5	4.0 4.2	M6	7441
05-C:C-C:O	3-(2-furyl)acrylaldehyde	A	314		K47u	7442
		D	312	4.4	B76	7443
05-C:C-C:O C	4-(2-furyl)-3-buten-2-one	A	310	4.3	H84	7444
05-[C:C] ₂ -C:O	5-(2-furyl)-2,4-pentadienal	A	350		K47u	7445
		D	346	4.5	B76	7446
05-[C:C] ₃ -C:O	7-(2-furyl)-2,4,6-heptatrienal	A	373		K47u	7447
		D	260 366	3.7 4.4	B76	7448
05-[C:C] ₄ -C:O	9-(2-furyl)-2,4,6,8-nonatetraenal	D	282 389	3.9 4.7	B76	7449
05-[C:C] ₅ -C:O	11-(2-furyl)-2,4,6,8,10-undecapentaenal	D	260 300 412	3.9 4.9	B76	7450
05-[C:C] ₆ -C:O	13-(2-furyl)-2,4,6,8,10,12-tridecahexaenal	D	280 320 429	4.0 3.8 4.9	B76	7451
05-C:C 05-C:O	1-(2-furoyl)-2-(2-furyl)ethylene	A	256 354	3.6 4.8	S89	7452
05-C:C-C:C 05-C:C-C:C	1,9-di(2-furyl)-1,3,6,8-nonatetraen-5-one		410	4.3	K5	7453
05-[C:C] ₃ -C:O 05-[C:C] ₃	1,13-di(2-furyl)-1,3,5,8,10,12-tridecahexaen-7-one		426	4.4	K5	7454
05-C:C O:C C:C-05	1,6-di(2-furyl)-1,5-hexadiene-3,4-dione		400	4.1	K5	7455
05-[C:C] ₂ -C:O O:C [C:C] ₂ -05	1,10-di(2-furyl)-1,3,7,9-decatetraene-5,6-dione		420	4.4	K5	7456
05-[C:C] ₃ -C:O O:C [C:C] ₃ -05	1,14-di(2-furyl)-1,3,5,9,11,13-tetradecaheptaene-7,8-dione		435	4.5	K5	7457

(05)(0:C)
N(05)(0:C)(C:C)
O

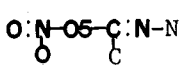
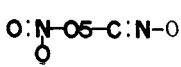
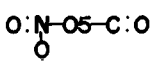
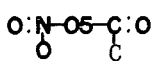
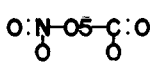



system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-furamide	W	255	4.1	M6	7458
	N,N-diethyl-2-furamide	Hp	243	4.1	W32	7459
	N,N-diethyl-5-(2,2,2-trichloro-1-hydroxyethyl)-2-furamide	Hp	248	4.1	W32	7460
	2-furoic acid	A	244	4.0	H84	7461
		W	245	4.1	M6	7462
	3-furoic acid	W	237		B63	7463
		*1	230		B63	7464
	methyl 2-furoate	iO	245	4.2	W32	7465
	ethyl 2-furoate	W	215 245	4.5 4.1	M6	7466
	2-methyl-3-furoic acid	A	243	3.7	H84	7467
	5-(hydroxymethyl)-2-furancarboxylic acid		~202.5 249.5	3.5 4.1	T18	7468
	1,1-dichloro-2,2-bis(5-methoxycarbonyl-2-furyl)ethane	iO	286 300	4.4 4.4	W32	7469
	1,1,1-trichloro-2,2-bis(5-methoxycarbonyl-2-furyl)ethane	iO	245 260	4.4 4.4	W32	7470
	3-chloro-2-furancarboxylic acid	A	254	4.0	H84	7471
	5-chloro-2-furancarboxylic acid	A	256	4.1	H84	7472
	3,4-furandicarboxylic acid	A	251	3.4	H73	7473
	5-(3,4-dicarboxy-2-furyl)pentanoic acid	A	263	3.4	H73	7474
	ethyl 3,4-dihydroxy-2,5-furandicarboxylate	*2	287	4.4	E1	7475
		*3	317	4.4	E1	7476
	3-(2-furyl)acrylic acid	A	300		H23	7477
		H	303	4.7	H22	7478
	ethyl 3-(2-furyl)acrylate	A	300	4.4	H84	7479
	2-benzamido-3-(2-furyl)acrylic acid	A	228 311	4.1 4.3	B51	7480

*1 Na salt/W *2 1M HCl/M *3 5% KOH/W

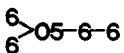
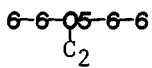
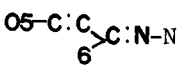
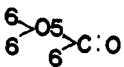
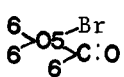
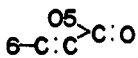
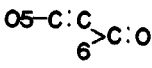
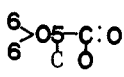
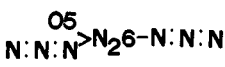
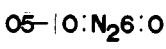


system	compound	solv.	$\lambda_{max.}$	log ϵ	ref.	no.
	ethyl 2-benzamido-3-(2-furyl)acrylate	A	228 313	4.1 4.3	B51	7481
$05-C:C-C:O$ 	3-(2-furyl)-2-mercaptoacrylic acid	A	224 324	3.7 4.3	C4	7482
		*1	249 335	4.0 4.3	C4	7483
	2,2'-dithiobis[3-(2-furyl)acrylic acid]	A	318	4.4	C4	7484
$05-C:C-C:C-C:O$ 	5-(2-furyl)-2,4-pentadienoic acid	A	320		H23	7485
		E	337	4.5	P11	7486
		H	337		H23	7487
$05-[C:C]_3-C:O$ 	7-(2-furyl)-2,4,6-heptatrienoic acid	A	353		H23	7488
		H	357		H23	7489
$(05)(O:C)_2(C:C)_2-C$ 	4-carboxy-5-(2-furyl)-3-methyl-2,4-pentadienoic acid	iP	300	4.5	P11	7490
	4-carboxy-5-(2-furyl)-3-methyl-2,4-pentadienoic anhydride	iP	386	4.8	P11	7491
$05-N:O$ 	2-nitrofuran	W	225 315	3.5 3.9	R2	7492
$C-05-N:O$ 	2-(hydroxymethyl)-5-nitrofuran	W	230 320	3.6 4.0	R2	7493
	2-(acetoxymethyl)-5-nitrofuran	W	317	4.0	P2n	7494
	2-(diacetoxymethyl)-5-nitrofuran	W	308	4.1	P2n	7495
$O:N-05-N:O$ 	2,5-dinitrofuran	W	230 310	3.9 4.1	R2	7496
$05-C:C-N:O$ 	2-(2-nitrovinyl)furan	M	226-30 342		S2g	7497
$O:N-05-C:N-N$ 	5-nitro-2-furaldehyde semicarbazone	W	260 375	4.1 4.2	R2	7498
	5-nitro-2-furaldehyde 3-methylsemicarbazone	W	265 380	4.1 4.2	R2	7499
	5-nitro-2-furaldehyde 1-methylsemicarbazone	W	265 385	4.1 4.2	R2	7500

*1 0.5N Na₂CO₃/W

system	compound	solv.	$\lambda_{\max.}$	$\log \epsilon$	ref.	no.
	2-acetyl-5-nitrofuran semicarbazone	W	260 375	4.1 4.1	R2	7501
	2-acetyl-5-nitrofuran 3-methylsemicarbazone	W	225 320	4.1 4.0	R2	7502
	5-nitro-2-furaldehyde syn-oxime	W	230 345	4.1 4.1	R1	7503
	5-nitro-2-furaldehyde anti-oxime	W	230 340	4.0 4.1	R1	7504
	5-nitro-2-furaldehyde O-acetyl-syn-oxime	W	230 330	4.2 4.2	R1	7505
	5-nitro-2-furaldehyde O-acetyl-anti-oxime	W	230 325	4.1 4.2	R1	7506
	5-nitrofuraldehyde	W	225 310	3.9 4.1	R2	7507
	2-acetyl-5-nitrofuran	W	225 310	4.0 4.1	R2	7508
	5-nitro-2-furoic acid	A	212 314	4.0 4.1	A30n	7509
	ethyl 5-nitro-2-furoate	M	213 297	4.1 4.1	A30n	7510
		W	<200 305		R2	7511
C-05-6	3-(5-phenyl-2-furyl)propionic acid	A	288	4.1	E14	7512
6-05-6	2,4-diphenylfuran	A	242 277	4.3 4.3	K30	7513
	2,5-diphenylfuran	A	226 324	4.2 4.5	K30	7514
	3-methyl-2,5-diphenylfuran	A	232 318	4.2 4.4	K30	7515
	3,4-dimethyl-2,5-diphenylfuran	A	232 318	4.2 4.4	K30	7516
	4,7-dihydro-1,3-diphenylisobenzofuran	E	230 332	4.4 4.7	A6	7517
C ₃ -6-05-6-C ₃	2,5-dimesitylfuran	A	218 265	4.4 4.1	K30	7518
	3-methoxy-2,5-diphenylfuran	A	235 340	4.3 4.4	K30	7519

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	3-phenoxy-2,5-diphenylfuran	A	230 326	4.3 4.4	K30	7520
	3-acetoxy-2,5-diphenylfuran	A	227 322	4.3 4.4	K30	7521
	3-acetoxy-4-methyl-2,5-diphenylfuran	A	230 322	4.3 4.4	K30	7522
	3-bromo-2,5-diphenylfuran	A	228 319	4.3 4.5	K30	7523
	3,4-dibromo-2,5-diphenylfuran	A	230 314	4.3 4.4	K30	7524
	2,3,5-triphenylfuran	A	231 320	4.3 4.4	K30	7525
	2,5-diphenyl-3-(p-tolyl)furan	A	230 325	4.3 4.4	K30	7526
	3-mesityl-2,5-diphenylfuran	A	228 327	4.4 4.4	K30	7527
	2,5-dimesityl-3-phenylfuran	A	266	4.2	K30	7528
	2-phenyl-5-xenylfuran	A	258 330 338	3.9 4.5 4.5	K30	7529
	tetraphenylfuran	B	342 512	3.8 3.1	S40	7530
	2-(o-chlorophenyl)-3,4,5-triphenylfuran	B	334.5 464	3.9 2.9	S40	7531
	2-(p-chlorophenyl)-3,4,5-triphenylfuran	B	340 510	3.8 3.2	S40	7532
	3-(o-chlorophenyl)-2,4,5-triphenylfuran	B	332 492.5	3.8 3.2	S40	7533
	3-(p-chlorophenyl)-2,4,5-triphenylfuran	B	345 510	3.9 3.1	S40	7534
	2,5-bis(o-chlorophenyl)-3,4-diphenylfuran	B	332 436.5	3.9 2.8	S40	7535
	2,5-bis(p-chlorophenyl)-3,4-diphenylfuran	B	341 512	3.9 3.2	S40	7536
	3,4-bis(o-chlorophenyl)-2,5-diphenylfuran	B	325 500	3.7 3.3	S40	7537

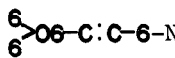
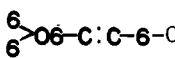
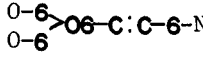
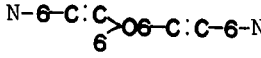
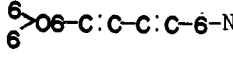
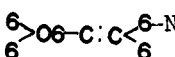
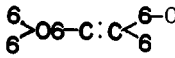
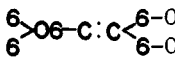
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	3,4-bis(p-chlorophenyl)-2,5-diphenyl-furan	B	340 514	3.9 3.1	S40	7538
	2,3-diphenyl-5-xenylfuran	A	270 338	4.2 4.5	K30	7539
	2,5-diphenyl-3-xenylfuran	A	282	4.5	K30	7540
	3,5-diphenyl-2-xenylfuran	A	253 343	4.3 4.5	K30	7541
	4,7-dihydro-1,3-dixenylisobenzofuran	E	244 272 362	4.4 4.5 4.8	A6	7542
	3-(2-furyl)-1-phenyl-2-propen-1-one; 2,4-dinitrophenylhydrazone	C	266 326 404		J26	7543
		*1	300 512		J26	7544
	3-benzoyl-2,5-diphenylfuran	A	296	4.4	S25	7545
	3-benzoyl-4-bromo-2,5-diphenylfuran	A	307	4.4	S25	7546
(05)(6) ₄ (O:C) ₂	3,4-dibenzoyl-2,5-diphenylfuran	A	258	4.5	K26	7547
	2-cinnamoylfuran	A	228 324	2.9 4.0	S89	7548
	3-(2-furyl)-1-phenyl-2-propen-1-one	A	260 344	3.9 4.4	S89	7549
	3-(α -hydroxybenzyl)-2,5-diphenyl-4-furancarboxylic acid	A	297	4.3	S25	7550
	3-(α -hydroxybenzyl)-2,5-diphenyl-4-furancarboxylic lactone	A	345	4.4	S25	7551
(05)(6) ₃ (O:C) ₂	4-benzoyl-2,5-diphenyl-4-furancarboxylic acid	A	399	4.4	S25	7552
	2,4-diazido-6-(2-furyl)pyrimidine	A	249 291.5 331	4.3 4.2 4.4	B53	7553
	6-(2-furyl)-1,2,3,4-tetrahydro-2,4-pyrimidinedione; 6-(2-furyl)uracil	A	272.5 311		B53	7554

*1 0.2N NaOH/A+C (9:1)

system	compound	solv.	$\lambda_{\text{max.}}$	$\log \epsilon$	ref.	no.
6- 0:05:C-6	3-benzylidene-2,3-dihydro-5-phenyl-2-furanone	A	248 380	4.3 4.5	H6	7555
C-6- 0:05:C-6	3-benzylidene-2,3-dihydro-5-(p-tolyl)-2-furanone	A	256 395	4.2 4.5	H6	7556
C₂-6- 0:05:C-6	3-benzylidene-2,3-dihydro-5-(4-o-xylyl)-2-furanone	A	256 397	4.3 4.5	H6	7557
	3-benzylidene-2,3-dihydro-5-(5,6,7,8-tetrahydro-2-naphthyl)-2-furanone	A	256 397	4.3 4.5	H6	7558
N-6- 0:05:C-6	5-(p-acetamidophenyl)-3-benzylidene-2,3-dihydro-2-furanone	A	288 409	4.2 4.5	H6	7559
O-6- 0:05:C-6	3-benzylidene-2,3-dihydro-5-(p-methoxyphenyl)-2-furanone	A	255 397	4.3 4.5	H6	7560
Cl-6- 0:05:C-6	3-benzylidene-5-(p-chlorophenyl)-2,3-dihydro-2-furanone	A	255 394	4.2 4.4	H6	7561
Br-6- 0:05:C-6	3-benzylidene-5-(p-bromophenyl)-2,3-dihydro-2-furanone	A	255 396	4.2 4.4	H6	7562
6-6- 0:05:C-6	3-benzylidene-2,3-dihydro-5-xenyl-2-furanone	A	288 400	3.5 4.5	H6	7563
C₂-66- 0:05:C-6	5-(5-acenaphthenyl)-3-benzylidene-2,3-dihydro-2-furanone	A	246 410	4.2 4.3	H6	7564

PART 45. (06)- AND (06:X)-CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N-6 > 06-6	2-(p-dimethylaminophenyl)-4,6-diphenylpyrilium perchlorate	A	563		W44	7565
	4-(p-dimethylaminophenyl)-2,6-diphenylpyrilium perchlorate		540		W44c	7566
N-6 > 06-6-N	2,4-bis(p-dimethylaminophenyl)-6-phenylpyrilium perchlorate		578		W44c	7567
	2,6-bis(p-dimethylaminophenyl)-4-phenylpyrilium perchlorate		615		W44c	7568
N-6 > 06-6-N N-6	2,4,6-tris(p-dimethylaminophenyl)pyrylium perchlorate		533		W44c	7569
O-6 > 06-6	2-(p-methoxyphenyl)-4,6-diphenylpyrilium perchlorate		454		W44c	7570
	4-(p-methoxyphenyl)-2,6-diphenylpyrilium perchlorate		418		W44c	7571
O-6 > 06-6-O	2,4-bis(p-methoxyphenyl)-6-phenylpyrilium perchlorate		416		W44c	7572
	2,6-bis(p-methoxyphenyl)-4-phenylpyrilium perchlorate		478		W44c	7573
O-6 > 06-6-O O-6	2,4,6-tris(p-methoxyphenyl)pyrilium perchlorate		420		W44c	7574
O-6 > 06-6-N	4-(p-dimethylaminophenyl)-2-(p-methoxyphenyl)-6-phenylpyrilium perchlorate		542		W44c	7575
	2-(p-dimethylaminophenyl)-6-(p-methoxyphenyl)-4-phenylpyrilium perchlorate		615		W44c	7576
	2-(p-dimethylaminophenyl)-4-(p-methoxyphenyl)-6-phenylpyrilium perchlorate		564		W44c	7577
O-6 > 06-6-N N-6	2,4-bis(p-dimethylaminophenyl)-6-(p-methoxyphenyl)pyrilium perchlorate		534		W44c	7578
	2,6-bis(p-dimethylaminophenyl)-4-(p-methoxyphenyl)pyrilium perchlorate		607		W44c	7579
O-6 > 06-6-N O-6	2-(p-dimethylaminophenyl)-4,6-bis(p-methoxyphenyl)pyrilium perchlorate		600		W44c	7580
	4-(p-dimethylaminophenyl)-2,6-bis(p-methoxyphenyl)pyrilium perchlorate		539		W44c	7581

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-(p-dimethylaminostyryl)-4,6-diphenylpyrilium perchlorate		650		W44g	7582
	4-(p-dimethylaminostyryl)-2,6-diphenylpyrilium perchlorate		645		W44g	7583
	2-(p-methoxystyryl)-4,6-diphenylpyrilium perchlorate		507		W44g	7584
	2-(p-dimethylaminostyryl)-4,6-bis(methoxyphenyl)pyrilium perchlorate		638		W44g	7585
	2,6-bis(p-dimethylaminostyryl)-4-phenylpyrilium perchlorate		725		W44g	7586
	4-[4-(p-dimethylaminophenyl)-1,3-butadienyl]-2,6-diphenylpyrilium perchlorate		690		W44g	7587
	2-[β -(p-dimethylaminophenyl)styryl]-4,6-diphenylpyrilium perchlorate		655		W44	7588
	2-[β -(p-methoxyphenyl)styryl]-4,6-diphenylpyrilium perchlorate		526		W44	7589
	2-[2,2-bis(p-methoxyphenyl)viny]-4,6-diphenylpyrilium perchlorate		538		W44	7590
C-06:0	14-hydroxybufa-3,5,20,22-tetraenolide; scillaridin-A	A	230 300	4.2 3.7	S75n	7591
O ₂ -06:0	3,5-dihydroxy-4H-pyran-4-one; 3,5-dihydroxy- γ -pyrone		290	3.9	B41	7592
	3,5-dimethoxy-4H-pyran-4-one; 3,5-dimethoxy- γ -pyrone		283	3.9	B41	7593
	3,5-diacetoxy-4H-pyran-4-one; 3,5-diacetoxy- γ -pyrone		257	3.9	B41	7594
	3,5-bis(phenylcarbamoxyloxy)-4H-pyran-4-one; 3,5-bis(phenylcarbamoxyloxy)- γ -pyrone		277	4.1	B41	7595
OC-06:0	4-hydroxy-6-methyl-2H-pyran-2-one; 4-hydroxy-6-methyl- α -pyrone; 2-hydroxy-6-methyl- γ -pyrone	A *1	283 278	3.8 3.8	B64 B64	7596 7597
	5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one; 5-hydroxy-2-(hydroxymethyl)- γ -pyrone	M *2	269 316	3.9 3.8	B64 B64	7598 7599

*1 0.0002M NaOH/A *2 0.025M KOH/A





system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	3-hydroxy-5-(hydroxymethyl)-4H-pyran-4-one; 3-hydroxy-5-(hydroxymethyl)- γ -pyrone	W	315	3.7	S60	7600
		*1	315	3.7	S60	7601
	3-acetoxy-5-(acetoxymethyl)-4H-pyran-4-one; 3-acetoxy-5-(acetoxymethyl)- γ -pyrone	W	255	4.0	S60	7602
OC ₂ -06:0	3-ethyl-4-hydroxy-6-methyl-2H-pyran-2-one; 3-ethyl-4-hydroxy-6-methyl- α -pyrone; 3-ethyl-2-hydroxy-6-methyl- γ -pyrone	A	290	3.9	B64	7603
		*2	289	4.0	B64	7604
O ₂ C-06:0	3-hydroxy-6-(hydroxymethyl)-4-methoxy-2H-pyran-2-one; 3-hydroxy-6-(hydroxymethyl)-4-methoxy- α -pyrone	M	326	4.0	H25	7605
	6-(hydroxymethyl)-3,4-dimethoxy-2H-pyran-2-one; 6-(hydroxymethyl)-3,4-dimethoxy- α -pyrone	W	300	4.0	H25	7606
OC-06:0 -C:O C	3-acetyl-4-hydroxy-6-methyl-2H-pyran-2-one; 3-acetyl-4-hydroxy-6-methyl- α -pyrone; 3-acetyl-2-hydroxy-6-methyl- γ -pyrone	A	310	4.1	H25	7607
		*2	294	3.9	B64	7608
OC ₂ -06:0 -C:O C	5-acetyl-6-hydroxy-3,4-trimethylene-2H-pyran-2-one; 5-acetyl-6-hydroxy-3,4-trimethylene- α -pyrone; 3-acetyl-6-hydroxy-4,5-trimethylene- α -pyrone	*3	288 350	3.8 4.3	S22	7609
	5-acetyl-3,4-(1-butyltrimethylene)-6-hydroxy-2H-pyran-2-one; 5-acetyl-3,4-(1-butyltrimethylene)-6-hydroxy- α -pyrone; 3-acetyl-4,5-(3-butyltrimethylene)-6-hydroxy- α -pyrone	*4	355	4.3	S22	7610
06:0 -C:O O	4-oxo-4H-pyran-2-carboxylic acid; γ -pyrone-2-carboxylic acid; coumalic acid	A	260	4.0	A40	7611
	2-oxo-2H-pyran-5-carboxylic acid; α -pyrone-5-carboxylic acid; coumalic acid	M	242 288	3.9 3.6	S75g	7612
		W	240 284	4.0 3.7	H25	7613
		*5	234 292	3.8 3.7	S75g	7614
	methyl 2-oxo-2H-pyran-5-carboxylate; methyl α -pyrone-5-carboxylate; methyl coumalate	A	243 287	4.0 3.6	S22	7615

*1 alkaline *2 0.0002M NaOH/A *3 0.1N NaOH/80% A *4 0.1N HCl/80% A
*5 1.5 mole NaOH/M

(06:0)(0:C)
O(06:0)(6)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₂ - 06:0 - C:O O	methyl 3,4-(1-butyltrimethylene)-2-oxo-2H-pyran-5-carboxylate; methyl 3,4-(1-butyltrimethylene)- α -pyrone-5-carboxylate	A	255 298	3.9 3.7	S22	7616
O- 06:0 - C:O O	3-hydroxy-2-oxo-2H-pyran-6-carboxylic acid; 3-hydroxy- α -pyrone-6-carboxylic acid	W	321	3.5	H25	7617
	methyl 3-methoxy-2-oxo-2H-pyran-6-carboxylate; methyl 3-methoxy- α -pyrone-6-carboxylate	M	309	4.0	H25	7618
O ₂ - 06:0 - C:O O	methyl 3-hydroxy-4-methoxy-2-oxo-2H-pyran-6-carboxylate; methyl 3-hydroxy-4-methoxy- α -pyrone-6-carboxylate	M	260 339	3.6 4.0	H25	7619
	methyl 3,4-dimethoxy-2-oxo-2H-pyran-6-carboxylate; methyl 3,4-dimethoxy- α -pyrone-6-carboxylate	M	321	3.8	H25	7620
O: C-06:0 - C:O O O	4-oxo-4H-pyran-2,6-dicarboxylic acid; γ -pyrone-2,6-dicarboxylic acid; chelidonic acid	A	270	4.1	A40	7621
	ethyl 4-oxo-4H-pyran-2,6-dicarboxylate; ethyl γ -pyrone-2,6-dicarboxylate; ethyl chelidonate	A	270	4.0	A40	7622
6-06:0 -6	2,6-diphenyl-4H-pyran-4-one; 2,6-diphenyl- γ -pyrone	Hp	275	4.4	E6	7623

PART 46. OTHER AROMATIC CHROMOPHORES WITH 0 HETERO-ATOM(S)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
065	benzo[b]furan; coumarone	cH	245	4.1	J28	7624
	1,2,3,4-tetrahydrodibenzofuran;	cH	253	4.1	J28	7625
02-065	4,6-dimethoxybenzo[b]furan; 4,6-dimethoxycoumarone	A	253	4.1	B65	7626
	6,7-dimethoxybenzo[b]furan; 6,7-dimethoxycoumarone	A	253	4.1	B65	7627
0C₄-065	2-ethyl-5-hydroxy-4,6,7-trimethylbenzo- [b]furan; 2-ethyl-5-hydroxy-4,6,7- trimethylcoumarone	A	294	3.6	K16	7628
0₂C₂-065	1,2,3,4-tetrahydro-5,7-dimethoxy- 1-methyldibenzofuran-3-one	A	216 256	4.5 4.1	M7	7629
065-C:O 	benzo[b]furan-2-carboxylic acid; coumarilic acid	M	200 265.5	4.3 4.2	F38	7630
6-065-6	1,3-diphenylisobenzofuran	E	270 310 415	4.5 4.0 4.5	A6	7631
6-065-6 	5,6-dimethyl-1,3-diphenylisobenzofuran	E	277 310 415	4.6 4.0 4.4	A6	7632
6-6-065-6-6	1,3-dixenylisobenzofuran	E	292 436	4.6 4.6	A6	7633
6-6-065-6-6 	5,6-dimethyl-1,3-dixenylisobenzofuran	E	296 435	4.6 4.6	A6	7634
0:065:C-6	2-benzylidene-2,3-dihydro-3-benzo- furanone	A	251 316.5 379	4.1 4.3 4.1	S38	7635
0:065:C-6-0₂ 	2,3-dihydro-4,6-dihydroxy-2-(3,4- dihydroxybenzylidene)-3-benzofuranone; aureusidin	A	269 398.5	3.9 4.4	S38	7636
	2,3-dihydro-4,6-dimethoxy-2-(3,4- dimethoxybenzylidene)-3-benzofuranone; aureusidin tetramethyl ether	A	254 397	4.0 4.5	S38	7637
	2,3-dihydro-6,7-dimethoxy-2-(3,4- dimethoxybenzylidene)-3-benzofuranone	A	256.5 405.5	4.0 4.4	S38	7638
	4,6-diacetoxy-2-(3,4-diacetoxybenzyl- idene)-2,3-dihydro-3-benzofuranone; auresidin tetracetate	A	251 317 374.5	4.1 4.3 4.2	S38	7639

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O:065:C-6-N O ₂	2-(m-aminobenzylidene)-2,3-dihydro-6,7-dimethoxy-3-benzofuranone	A	318	4.4	P37	7640
	2-(p-aminobenzylidene)-2,3-dihydro-6,7-dimethoxy-3-benzofuranone	A	445	4.5	P37	7641
O-066-6	7-methoxy-2-phenyl-1-oxonianaphthalene perchlorate; 7-methoxyflavylium perchlorate	*1	505	4.6	R21	7642
	8-methoxy-2-phenyl-1-oxonianaphthalene perchlorate; 8-methoxyflavylium perchlorate	*1	520	4.5	R21	7643
O ₂ -066-6	5,7-dimethoxy-2-phenyl-1-oxonianaphthalene perchlorate; 5,7-dimethoxyflavylium perchlorate	*1	454	3.3	R21	7644
			515	3.2		
O ₂ -066-6-0	3- β -D-glucosido-7-hydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3- β -D-glucosido-4',7-dihydroxyflavylium chloride	*1	488	4.7	G35	7645
O ₃ -066-6	3,5,7-trihydroxy-2-phenyl-1-oxonianaphthalene chloride; 3,5,7-trihydroxyflavylium chloride	*1	510	4.7	C28	7646
O ₃ -066-6-0	3,5,7-trihydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3,4',5,7-tetrahydroxyflavylium chloride; pelargonidin chloride	*2	270	4.3	S52	7647
			430	4.0		
			533	4.5		
	3,6,7-trihydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3,4',6,7-tetrahydroxyflavylium chloride	*1	485	4.6	H31	7648
	3-D-glucosido-5,7-dihydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3-D-glucosido-4',5,7-trihydroxyflavylium chloride; pelargonidine 3-D-glucoside chloride	2.0	274	4.3	S52	7649
			500	4.4		
		*2	280	4.2		7650
			520	4.1		
		3.4	276	4.3	S52	7651
			500	4.0		
	3,5-di-D-glucosido-7-hydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3,5-D-glucosido-4',7-dihydroxyflavylium chloride; pelargonin chloride	*3	503		R25	7652




*1 0.01% HCl/M *2 0.001M HCl/A *3 0.1% HCl/M

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
0 ₄ -066-6	3,5,6,7-tetrahydroxy-2-phenyl-1-oxonianaphthalene chloride; 3,5,6,7-tetrahydroxyflavylium chloride	*1	461	4.7	C28	7653
0 ₃ -066-6-0 ₂	2-(3,4-dihydroxyphenyl)-3-D-glucosido-5,7-dihydroxy-1-oxonianaphthalene chloride; 3-D-glucosido-3',4',5,7-tetrahydroxyflavylium chloride; chrysanthemin chloride	*1	523	4.5	G35	7654
	2-(3,4-dihydroxyphenyl)-3,5-di-D-glucosido-7-hydroxy-1-oxonianaphthalene chloride; 3,5-di-D-glucosido-3',4',7-trihydroxyflavylium chloride; cyanin chloride	*1	521		R25	7655
	3,5-di-D-glucosido-7-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-1-oxonianaphthalene chloride; 3,5-di-D-glucosido-4',7-dihydroxy-3'-methoxyflavylium chloride; peonin chloride	*1	519		R25	7656
0 ₄ -066-6-0	3,5,6,7-tetrahydroxy-2-(p-hydroxyphenyl)-1-oxonianaphthalene chloride; 3,4',5,6,7-pentahydroxyflavylium chloride	*1	497	4.9	C28	7657
0 ₃ -066-6-0 ₃	3,5,7-trihydroxy-2-(3,4,5-trihydroxyphenyl)-1-oxonianaphthalene chloride; 3,3',4',5,5',7-hexahydroxyflavylium chloride; delphinidin chloride	*1	541		G12	7658
	3,6,7-trihydroxy-2-(3,4,5-trihydroxyphenyl)-1-oxonianaphthalene chloride; 3,3',4',5',6,7-hexahydroxyflavylium chloride	*1	510	4.6	H31	7659
	2-(3,4-dihydroxy-5-methoxyphenyl)-3,5-di-D-glucosido-7-hydroxy-1-oxonianaphthalene chloride; 3,5-di-D-glucosido-3',4',7-trihydroxy-5'-methoxyflavylium chloride	*1	542	4.3	B49	7660
	3-D-glucosido-5,7-dihydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-1-oxonianaphthalene chloride; 3-D-glucosido-4',5,7-trihydroxy-3',5'-dimethoxyflavylium chloride; oenin chloride	*1	537		L17	7661
0 ₄ -066-6-0 ₂	2-(3,4-dihydroxyphenyl)-3,5,6,7-tetrahydroxy-1-oxonianaphthalene chloride; 3,3',4',5,6,7-hexahydroxyflavylium chloride	*1	515		C28	7662

*1 0.1% HCl/M

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
O ₄ - 066-6 -O ₃	3,5,6,7-tetrahydroxy-2-(3,4,5-trihydroxy-phenyl)-1-oxonianaphthalene chloride; 3,3',4',5,5',6,7-heptahydroxyflavylium chloride	*1	530		C28	7663
O- 066-6 -N	2-(p-aminophenyl)-7-hydroxy-1-oxonia-naphthalene chloride; 4'-amino-7-hydroxyflavylium chloride	*1	504 522		R22	7664
O ₂ - 066-6 -N	2-(p-aminophenyl)-3,7-dihydroxy-1-oxonianaphthalene chloride; 4'-amino-3,7-dihydroxyflavylium chloride	*1	564		R21	7665
	2-(p-aminophenyl)-3-hydroxy-7-methoxy-1-oxonianaphthalene chloride; 4'-amino-3-hydroxy-7-methoxyflavylium chloride	*1	558		R21	7666
O ₂ - 066-6 -NO	2-(3-amino-4-methoxyphenyl)-3-hydroxy-7-methoxy-1-oxonianaphthalene; 3'-amino-3-hydroxy-4',7-dimethoxyflavylium perchlorate	*1	492		R22	7667
O ₃ - 066-6 -N	2-(p-aminophenyl)-3,5,7-trihydroxy-1-oxonianaphthalene chloride; 4'-amino-3,5,7-trihydroxyflavylium chloride	*1	558		R22	7668
	2-(p-aminophenyl)-3-hydroxy-5,7-dimethoxy-1-oxonianaphthalene perchlorate; 4'-amino-3-hydroxy-5,7-dimethoxyflavylium perchlorate	*1	560		R22	7669
O ₃ - 066-6 -NO	2-(3-amino-4-methoxyphenyl)-3-hydroxy-5,7-dimethoxy-1-oxonianaphthalene perchlorate; 3'-amino-3-hydroxy-4',5,7-trimethoxyflavylium perchlorate	*1	421		R22	7670
066:0	2H-chromen-2-one; coumarin	PE	272	4.0	I1	7671
C- 066:0	3-methyl-2H-chromen-2-one; 3-methyl-coumarin	H	274	4.0	M9h	7672
	2-methyl-4H-chromen-4-one; 2-methyl-chromone	A	296	3.9	G4	7673
NC- 066:0	2-methyl-3-piperidino-4H-chromen-4-one; 2-methyl-3-piperidinochromone		305	3.9	W39u	7674
O- 066:0	4-hydroxy-2H-chromen-2-one; 4-hydroxy-coumarin; 2-hydroxychromone	A	280	4.0	R20	7675
		*2	287	4.2	R20	7676

*1 0.1% HCl/M *2 0.1% NaOH/W

system	compound	solv.	λ_{\max}	$\log \epsilon$	ref.	no.
	3-ethyl-4-hydroxy-2H-chromen-2-one; 3-ethyl-4-hydroxycoumarin; 3-ethyl-2-hydroxychromone	PE	279	4.0	I1	7677
O ₂ C-066:0	7,8-dimethoxy-4-(3-methoxycarbonylprop- yl)-2H-chromene-2-one; 7,8-dimethoxy-4- (3-methoxycarbonylpropyl)coumarin	A	317	4.2	L28	7678
O ₂ C ₂ -066:0	7,8-dimethoxy-3-(methoxycarbonylmethyl)- 4-(3-methoxycarbonylpropyl)-2H- chromen-2-one; 7,8-dimethoxy-3- (methoxycarbonylmethyl)-4-(3- methoxycarbonylpropyl)coumarin	A	320	4.2	L28	7679
066:0 	4-oxo-4H-chromene-2-carboxylic acid; 2-chromonecarboxylic acid	A	230 305	4.3 3.9	S27x	7680
	ethyl 4-oxo-4H-chromene-2-carboxylate; ethyl 2-chromonecarboxylate	A	238 311	4.2 3.8	J9	7681
0-066:0 	ethyl 5-hydroxy-4-oxo-4H-chromene-2- carboxylate; ethyl 5-hydroxy-2- chromonecarboxylate	A	247 345	4.2 3.4	J9	7682
OC ₂ -066:0 	ethyl 6-hydroxy-7,8-dimethyl-2-oxo- 2H-chromene-3-carboxylate; ethyl 6-hydroxy-7,8-dimethyl-3-coumarin- carboxylate		331		W7	7683
066:0 -6	2-phenyl-4H-chromen-4-one; flavone	A	304	4.4	D11	7684
	3-phenyl-4H-chromen-4-one; isoflavone	A	243 306	4.3 4.7	W29	7685
066:0 -6-C ₃	2-mesityl-4H-chromen-4-one; 2',4',6'-trimethylflavone	A	296	4.0	D11	7686
C-066:0 -6-C ₃	2-mesityl-3-methyl-4H-chromen-4-one; 2',3,4',6'-tetramethylflavone	A	304	4.0	D11	7687
066:0 -6-0	2-(o-hydroxyphenyl)-4H-chromen-4-one; 2'-hydroxyflavone		247		A37	7688
	2-(m-hydroxyphenyl)-4H-chromen-4-one; 3'-hydroxyflavone		247		A37	7689
	2-(p-hydroxyphenyl)-4H-chromen-4-one; 4'-hydroxyflavone		245 323		A37	7690
	2-(p-methoxyphenyl)-4H-chromen-4-one; 4'-methoxyflavone	A	325	4.4	D11	7691
0-066:0 -6	4-hydroxy-3-phenyl-2H-chromen-2-one; 4-hydroxy-3-phenylcoumarin; 2-hydroxy-3-phenylchromone	A	284 311	4.0 4.0	W29	7692

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
066:0 6-0 ₂	3-hydroxy-2-phenyl-4H-chromen-4-one; 3-hydroxyflavone		249 303.5 333.5		A37	7693
	5-hydroxy-2-phenyl-4H-chromen-4-one; 5-hydroxyflavone		270.5		A37	7694
	6-hydroxy-2-phenyl-4H-chromen-4-one; 6-hydroxyflavone		281.5		A37	7695
	7-hydroxy-2-phenyl-4H-chromen-4-one; 7-hydroxyflavone		249.5 311.5		A37	7696
	8-hydroxy-2-phenyl-4H-chromen-4-one; 8-hydroxyflavone		249.5 292		A37	7697
	4-methoxy-3-phenyl-2H-chromen-2-one; 4-methoxy-3-phenylcoumarin	A	285 311	4.0 4.0	W29	7698
	4-acetoxy-3-phenyl-2H-chromen-2-one; 4-acetoxy-3-phenylcoumarin	A	291 320	4.1 4.1	W29	7699
	2-(2,4-dihydroxyphenyl)-4H-chromen-4-one; 2',4'-dihydroxyflavone		247 334		A37	7700
	2-(3,4-dihydroxyphenyl)-4H-chromen-4-one 3',4'-dihydroxyflavone		247 337		A37	7701
	3-hydroxy-2-(m-hydroxyphenyl)-4H-chromen- 4-one; 3,3'-dihydroxyflavone		236.5 303 350		A37	7702
0-066:0 6-0	3-hydroxy-2-(p-hydroxyphenyl)-4H-chromen- 4-one; 3,4'-dihydroxyflavone		245 305 358.5		A37	7703
	7-hydroxy-2-(o-hydroxyphenyl)-4H-chromen- 4-one; 2',7-dihydroxyflavone		248 318		A37	7704
	7-hydroxy-2-(m-hydroxyphenyl)-4H-chromen- 4-one; 3',7-dihydroxyflavone		248.5 315		A37	7705
	7-hydroxy-2-(p-hydroxyphenyl)-4H-chromen- 4-one; 4',7-dihydroxyflavone		247 351		A37	7706
	7-hydroxy-3-(p-methoxyphenyl)-4H-chromen- 4-one; 7-hydroxy-4'-methoxyisoflavone		250 300		B103	7707
0 ₂ -066:0 6	3,7-dihydroxy-2-phenyl-4H-chromen-4-one; 3,7-dihydroxyflavone		252.5 317 345		A37	7708
	5,7-dihydroxy-2-phenyl-4H-chromen-4-one; 5,7-dihydroxyflavone		270 322		A37	7709

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
O ₂ -066:0 -6-0	7,8-dihydroxy-2-phenyl-4H-chromen-4-one; 7,8-dihydroxyflavone		251 315		A37	7710
	5,7-dihydroxy-2-(p-hydroxyphenyl)-4H- chromen-4-one; 4',5,7-trihydroxy- flavone; apigenin	A	269 337		G5	7711
		*1	278 368		G5	7712
	5,7-dihydroxy-3-(o-hydroxyphenyl)-4H- chromen-4-one; 2',5,7-trihydroxy- isoflavone	A	261	4.4	B23	7713
	5,7-dihydroxy-3-(p-hydroxyphenyl)-4H- chromen-4-one; 4',5,7-trihydroxy- isoflavone; genistein		263	4.5	B22	7714
	5,7-dihydroxy-2-(p-methoxyphenyl)-4H- chromen-4-one; 5,7-dihydroxy-4'- methoxyflavone	A	278 328		G5	7715
		*1	280 368		G5	7716
	5,7-dihydroxy-3-(p-methoxyphenyl)-4H- chromen-4-one; 5,7-dihydroxy-4'- methoxyisoflavone		262.5	4.6	B22	7717
	7-hydroxy-3-(p-hydroxyphenyl)-5-methoxy- 4H-chromen-4-one; 4',7-dihydroxy-5- methoxyisoflavone		256	4.5	B22	7718
	5-hydroxy-3-(o-hydroxyphenyl)-7-methoxy- 4H-chromen-4-one; 2',5-dihydroxy-7- methoxyisoflavone		259	4.5	B23	7719
	5-hydroxy-3-(p-hydroxyphenyl)-7-methoxy- 4H-chromen-4-one; 4',5-dihydroxy-7- methoxyisoflavone		262.5	4.6	B22	7720
	5-hydroxy-2-(p-hydroxyphenyl)-7-rhamno- glucosido-4H-chromen-4-one; 4',5- dihydroxy-7-rhamnoglucosidoflavone	A	269 338		G5	7721
		*1	268 343 398		G5	7722
O ₃ -066:0 -6-0	5,7-dimethoxy-3-(o-methoxyphenyl)-4H- chromen-4-one; 2',5,7-trimethoxy- isoflavone		245 281	4.1 4.0	W15	7723
	3,5,7-trihydroxy-2-(p-hydroxyphenyl)-4H- chromen-4-one; 3,4',5,7-tetrahydroxy- flavone; kaempferol	A	268 317 371	4.1 3.9 4.2	T8	7724

*1 NaOAc/A

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O ₃ -066:0 -6-O ₂	5,7-dihydroxy-2-(p-hydroxyphenyl)-3-L-rhamnosido-4H-chromen-4-one; 4',5,7-trihydroxy-3-L-rhamnosidoflavone	A	266 302 345	4.4 4.1 4.2	T8	7725
	2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4H-chromen-4-one; 3,3',4',5,7-pentahydroxyflavone; quercetin	A	254 360	4.4 4.4	K70	7726
		*1	309	4.6	K70	7727
	3,5,7-trihydroxy-2-(4-hydroxy-3-methoxyphenyl)-4H-chromen-4-one; 3,4',5,7-tetrahydroxy-3'-methoxyflavone	A	254 368	4.8 4.8	K70	7728
		*1	231 326 425	4.9 4.9 4.4	K70	7729
	2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-methoxy-4H-chromen-4-one; 3',4',5,7-tetrahydroxy-3-methoxyflavone	A	247 360	4.7 4.6	K70	7730
		*1	270 326 374	4.6 4.4 4.4	K70	7731
	2-(3,4-dihydroxyphenyl)-3,7-dihydroxy-5-methoxy-4H-chromen-4-one; 3,3',4',7-tetrahydroxy-5-methoxyflavone	A	249 264	4.7 4.8	K70	7732
		*1	312	4.6	K70	7733
	2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-L-rhamnosido-4H-chromen-4-one; 3',4',5,7-tetrahydroxy-3-L-rhamnosidoflavone; quercitrin		260 352	4.4 4.2	B126	7734
	5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-3-methoxy-4H-chromen-4-one; 4',5,7-trihydroxy-3,3'-dimethoxyflavone		256 360	4.3 4.3	B126	7735
	3,5-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-7-methoxy-4H-chromen-4-one; 3,4',5-trihydroxy-3',7-dimethoxyflavone; rhamnazin		255 375	4.4 3.3	B126	7736
	3,5,7-trihydroxy-2-(3,4-methylenedioxyphenyl)-4H-chromen-4-one; 3,5,7-trihydroxy-3',4'-methylenedioxyflavone		250 340	4.4 4.3	B126	7737
	5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-3,7-dimethoxy-4H-chromen-4-one; 4',5-dihydroxy-3,3',7-trimethoxyflavone		257 360	4.3 4.3	B126	7738

*1 0.1N NaOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	5,7-dihydroxy-3-methoxy-2-(3,4-methylenedioxyphenyl)-4H-chromen-4-one; 5,7-dihydroxy-3-methoxy-3',4'-methylenedioxyflavone		256 353	4.3 4.3	B126	7739
	2-(3,4-dimethoxyphenyl)-5-hydroxy-3,7-dimethoxy-4H-chromen-4-one; 5-hydroxy-3,3',4',7-tetramethoxyflavone		254 352	4.4 4.3	B126	7740
	2-(4-hydroxy-3-methoxyphenyl)-3,5,7-trimethoxy-4H-chromen-4-one; 4'-hydroxy-3,3',5,7-tetramethoxyflavone		251 345	4.3 4.3	B126	7741
O ₄ -066:O -6-O ₂	6-hydroxy-3,5,7-trimethoxy-2-(3,4-methylenedioxyphenyl)-4H-chromen-4-one; 6-hydroxy-3,5,7-trimethoxy-3',4'-methylenedioxyflavone		245 337	4.2 4.4	B126	7742
066:O -6-OC ₂	2-(4-methoxy-2,6-dimethylphenyl)-4H-chromen-4-one; 4'-methoxy-2',6'-dimethylflavone	A	302	4.1	D11	7743
O ₂ C-066:O -6-O	5,7-dihydroxy-3-(p-hydroxyphenyl)-2-methyl-4H-chromen-4-one; 4',5,7-trihydroxy-2-methylisoflavone	A	257.5	4.5	B103	7744
	5,7-dimethoxy-3-(o-methoxyphenyl)-8-methyl-4H-chromen-4-one; 2',5,7-trimethoxy-8-methylisoflavone		259	4.2	W15	7745
066:S -C:O O	2-carboxy-4H-chromene-4-thione	A	227.5 288 384	4.3 4.0 4.2	S27x	7746
0665	dibenzofuran	A	218 249 280	4.5 4.3 4.2	S8	7747
		cH	249.5 281.5	4.3 4.3	J28	7748
N-0665	2-aminodibenzofuran	A	217-8 313	4.4 4.2	S8	7749
N ₂ -0665	2,3-diaminodibenzofuran	A	222-3 333	4.4 4.2	S8	7750
O-0665	3-hydroxydibenzofuran	M	252.5 289		S2g	7751
O ₃ -0665	6-hydroxy-2,4-dimethoxydibenzofuran	M	230 264 314	4.3 4.2 4.0	M7	7752
	1,2,7-trimethoxydibenzofuran	A	304	4.3	F3	7753

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
	2,4,6-trimethoxydibenzofuran	M	230 264	4.7 4.4	M7	7754
O ₄ -0665	3,6-dihydroxy-2,7-dimethoxydibenzofuran		316	4.4	D13	7755
O ₃ C-0665	3-hydroxy-5,7-dimethoxy-1-methyldibenzo- furan	M	230 264	4.3 4.2	M7	7756
	3,5,7-trimethoxy-1-methyldibenzofuran	M	230 264	4.7 4.4	M7	7757
	ethyl 3-(1,2,7-trimethoxydibenzofuran- 4-yl)propionate	A	298	4.0	F3	7758
O ₄ C ₂ -0665	3,6-dihydroxy-2,7-dimethoxy-1,8-di- propyldibenzofuran		227 312	4.6 4.5	D13	7759
0665- O:O5:C-6	3-benzylidene-5-(dibenzofuran-2-yl)-2,3- dihydro-2-furanone	A	298 410	4.2 4.5	H6	7760
O:0665:O C	4,5-dihydro-2-isopropyl naphtho[1,2-a]- furan-4,5-dione		268 459	4.5 3.3	C86	7761
	4,9-dihydro-2-isopropyl naphtho[2,3-a]- furan-4,9-dione		249.5 379	4.7 3.4	C86	7762
N ₂ -06 ₃ -6-C:O 	rhodamin B	W	517 556.5		F38u	7763
O ₂ -06 ₃ -6-C:O 	fluorescein	W	490	4.5	F17g	7764
I ₄ O ₂ -06 ₃ -6-C:O 	erythrosin	W	530	5.2	F17g	7765
06 ₃ :C-6	9-benzylidenexanthene	A	220 341	4.8 4.1	B57n	7766
		D	220 341	4.8 4.1	B57n	7767
06 ₃ :O	9-xanthenone; xanthone	E	256 336	4.2 4.0	A20	7768
		*1	251 334 392	4.9 4.6 3.8	A20	7769
C-06 ₃ :O	2-methyl-4H-benzo[h]chromen-4-one; 2-methylbenzo[h]chromone	A	218 253 340	4.6 4.6 4.0	S27	7770

*1 H₂SO₄

(06₃:0)(06₄)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-methyl-4H-benzo[g]chromen-4-one; 2-methylbenzo[g]chromone	A	246 305 356	4.8 3.7 3.6	S27	7771
C ₂ -06 ₃ :0	3,5-dimethyl-1H-benzo[f]chromen-1-one; 3,5-dimethylbenzo[f]chromone	A	230 261 304	4.4 4.2 4.0	S27	7772
0-06 ₃ :0	1-hydroxy-9-xanthenone; 1-hydroxy-xanthone		250 364	4.3 3.6	M52	7773
0C-06 ₃ :0	6-methoxy-2-methyl-4H-benzo[h]chromen-4-one; 6-methoxy-2-methylbenzo[h]chromone	A	220 260 341	4.6 4.5 3.8	S27	7774
06 ₃ :0 -C:O O	4-oxo-4H-benzo[h]chromene-2-carboxylic acid; benzo[h]chromone-2-carboxylic acid	A	260 344	4.4 3.8	S27	7775
	4-oxo-4H-benzo[g]chromene-2-carboxylic acid; benzo[g]chromone-2-carboxylic acid	A	250 322	4.8 3.7	S27	7776
Br-06 ₃ :0 -6	2-bromo-1-phenyl-3H-benzo[f]chromen-3-one; 2-bromo-1-phenylbenzo[f]chromone	A	228 356	4.7 3.6	B3	7777
06 ₃ :0 -6-C:O O	1-(o-carboxyphenyl)benzo[f]chromen-3-one; 1-(o-carboxyphenyl)benzo[f]chromone	A	229 351	4.7 4.0	B3	7778
06 ₃ :65:0 O	9-(1,3-dioxoindan-2-ylidene)xanthene	*1	430 450 538		D3	7779
06 ₃ :N65-C	5-(xanthen-9-ylidene)-5H-tryptophan	*1	523		D3	7780
06 ₃ :N665	3-(xanthen-9-ylidene)-3H-carbazole	*1	585		D3	7781
06 ₃ :N665-C	9-methyl-3-(xanthen-9-ylidene)-3H-carbazole	*1	607		D3	7782
06 ₃ :N ₂ 6:O O:O	9-(perhydro-2,4,6-trioxypyrimidin-5-ylidene)xanthen	*1	560		D3	7783
06 ₃ 5	benzo[b]naphtho[2,3-d]furan; brazan	A	219 259 318	4.7 4.9 4.3	04	7784
06 ₄	benzo[kl]xanthene	A	219 287 361	4.2 3.9 4.1	05	7785

*1 1% H₂SO₄/dil. AA

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
06 ₄ 5	dinaphtho[1,2-b; 2,1-d]furan	A	269	4.6	F49	7786
			338	4.5		
06 ₅	dibenzo[c,k1]xanthene	A	244	4.7	05	7787
			312	4.2		
			375	4.1		

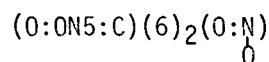
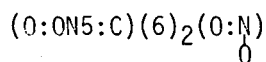
PART 47. AROMATIC CHROMOPHORES WITH O AND N HETERO-ATOMS

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-ON5:C:O C	1-(3-methylisoxazol-5-yl)-1,3-butane-dione	A	249 310	3.7 4.1	S1	7788
		E	249 310	3.7 4.1	S1	7789
	1-(3-methylisoxazol-5-yl)-3-phenyl-1,3-propanedione	A	256 340	3.9 4.3	S1	7790
		E	256 340	3.9 4.3	S1	7791
C-ON5-6	5-methyl-3-phenylisoxazole	M	265	4.3	E7	7792
6-ON5-6	2,4-diphenyloxazole	A	275	4.3	H1	7793
	2,5-diphenyloxazole	A	210	4.4	H1	7794
C ₂ -ON5:C-N66-C	1',3-diethyl-4-methyloxazolo-2'-cyanine iodide		434		B138	7795
O:ON5:C-6 C	4-benzylidene-2-methyl-2-oxazolin-5-one; 4-benzylidene-2-methyl-5-oxazolone	A	220 284	4.0 4.1	S31	7796
		C	332	4.4	S51	7797
O:ON5:C-6-F C	4-(p-fluorobenzylidene)-2-methyl-2-oxazolin-5-one; 4-(p-fluorobenzylidene)-2-methyl-5-oxazolone	C	335	4.4	S51	7798
O:ON5:C-6-Cl C	4-(o-chlorobenzylidene)-2-methyl-2-oxazolin-5-one; 4-(o-chlorobenzylidene)-2-methyl-5-oxazolone	C	335	4.3	S51	7799
		C	337	4.5	S51	7800
O:ON5:C-6-I ₂ O C	4-(4-acetoxy-3,5-diiodobenzylidene)-2-methyl-2-oxazolin-5-one; 4-(4-acetoxy-3,5-diiodobenzylidene)-2-methyl-5-oxazolone	A	332	4.5	B51	7801
		C	336	4.5	B51	7802
6- O:ON5:C-6	4-benzylidene-2-phenyl-2-oxazolin-5-one; 4-benzylidene-2-phenyl-5-oxazolone	A	259 360	4.2 4.6	B40	7803
		A	224 284	4.2 4.2	S31	7804
		AA	259 361	4.2 4.6	B40	7805

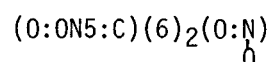
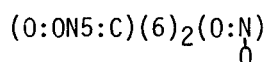
system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		C	262 365	4.2 4.6	C112	7806
6- O:ON5:C-6-C	4-(p-methylbenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-methylbenzylidene)-2-phenyl-5-oxazolone	A	229 292	4.3 4.3	S31	7807
6- O:ON5:C-6-N	4-(p-dimethylaminobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-dimethylaminobenzylidene)-2-phenyl-5-oxazolone	A	240 475	4.1 4.5	S31	7808
		C	472	4.7	B51	7809
		E	455	4.8	B51	7810
6- O:ON5:C-6-O	4-(o-methoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(o-methoxybenzylidene)-2-phenyl-5-oxazolone	AA	256 386	4.1 4.5	B40	7811
	4-(m-methoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(m-methoxybenzylidene)-2-phenyl-5-oxazolone	AA	259 366	4.2 4.5	B40	7812
	4-(p-methoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-methoxybenzylidene)-2-phenyl-5-oxazolone	A	228 308	4.2 4.3	S31	7813
		A	259 383	4.2 4.6	B40	7814
		AA	259 383	4.2 4.6	B40	7815
	4-(m-acetoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(m-acetoxybenzylidene)-2-phenyl-5-oxazolone	A	227 281	4.3 4.2	S31	7816
		AA	260 361	4.2 4.6	B40	7817
	4-(p-acetoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-acetoxybenzylidene)-2-phenyl-5-oxazolone	A	226 288	4.2 4.2	S31	7818
		AA	261 365	4.2 4.6	B40	7819
6- O:ON5:C-6-O₂	4-(2,3-dimethoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(2,3-dimethoxybenzylidene)-2-phenyl-5-oxazolone	A	223 288	4.3 4.2	S31	7820
		A	259 367 386	4.1 4.6 4.6	B40	7821
		AA	259 367	4.1 4.6	B40	7822

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
6- O:ON5:C-6-O ₃	4-(3,4-dimethoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(3,4-dimethoxybenzylidene)-2-phenyl-5-oxazolone	A	231 323	4.2 4.2	S31	7823
		A	264 398	4.2 4.5	B40	7824
		AA	264 396	4.3 4.5	B40	7825
	4-(3,4-methylenedioxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(3,4-methylenedioxybenzylidene)-2-phenyl-5-oxazolone	A	226 325	4.2 4.2	S31	7826
		AA	264	4.5	B40	7827
	4-(4-acetoxy-3-methoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(4-acetoxy-3-methoxybenzylidene)-2-phenyl-5-oxazolone	A	220 298	4.3 4.2	S31	7828
		AA	259 372	4.2 4.5	B40	7829
	4-(3-acetoxy-4-methoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(3-acetoxy-4-methoxybenzylidene)-2-phenyl-5-oxazolone	AA	259 380	4.2 4.6	B40	7830
	2-phenyl-4-(3,4,5-trimethoxybenzylidene)-2-oxazolin-5-one; 2-phenyl-4-(3,4,5-trimethoxybenzylidene)-5-oxazolone	A	254 385	4.1 4.4	B40	7831
		AA	286 385	3.9 4.5	B40	7832
	4-(m-fluorobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(m-fluorobenzylidene)-2-phenyl-5-oxazolone	C	363	4.6	B52	7833
		C	367	4.6	B52	7834
6- O:ON5:C-6-Cl	4-(o-chlorobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(o-chlorobenzylidene)-2-phenyl-5-oxazolone	A	226 279	4.3 4.2	S31	7835
		C	370	4.5	B51	7836
	4-(p-chlorobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-chlorobenzylidene)-2-phenyl-5-oxazolone	A	365	4.6	B51	7837
		C	370	4.6	B51	7838
6- O:ON5:C-6-Cl ₂	4-(2,6-dichlorobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(2,6-dichlorobenzylidene)-2-phenyl-5-oxazolone	A	222 274	4.3 4.1	S31	7839

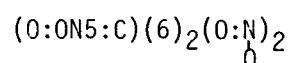
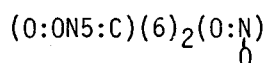
system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
6- O:ON5:C-6-ClO ₂	4-(3-chloro-4,5-dimethoxybenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(3-chloro-4,5-dimethoxybenzylidene)-2-phenyl-5-oxazolone	A	224 298	4.4 4.2	S31	7840
I-6- O:ON5:C-6	4-benzylidene-2-(o-iodophenyl)-2-oxazolin-5-one; 4-benzylidene-2-(iodophenyl)-5-oxazolone	A	~220 282	4.3 4.2	S31	7841
I ₂ O-6- O:ON5:C-6	4-[3,5-diiodo-4-(p-methoxyphenoxy)-benzyliden]-2-phenyl-2-oxazolin-5-one; 4-[3,5-diiodo-4-(p-methoxyphenoxy)-benzylidene]-2-phenyl-5-oxazolone	A C	230 292 376	4.6 4.4 4.6	S31 B51	7842 7843
6- O:ON5:C-C:C-6	4-cinnamylidene-2-phenyl-2-oxazolin-5-one; 4-cinnamylidene-2-phenyl-5-oxazolone	A	232 330	4.2 4.5	S31	7844
6- O:ON5:C-C:C-6 C	4-(α -methylcinnamylidene)-2-phenyl-2-oxazolin-5-one; 4-(α -methylcinnamylidene)-2-phenyl-5-oxazolone	A	230 310	4.3 4.2	S31	7845
6-C:ON5:O -6-N:O O	4-benzylidene-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-benzylidene-2-(o-nitrophenyl)-5-oxazolone	AA	365	4.4	B40	7846
	4-benzylidene-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-benzylidene-2-(m-nitrophenyl)-5-oxazolone	AA	364	4.5	B40	7847
	4-benzylidene-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-benzylidene-2-(p-nitrophenyl)-5-oxazolone	AA	279 381	4.0 4.5	B40	7848
6- O:ON5:C-6-N:O O	4-(o-nitrobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(o-nitrobenzylidene)-2-phenyl-5-oxazolone	A AA	228 360	4.3 4.4	S31 B40	7849 7850
	4-(m-nitrobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(m-nitrobenzylidene)-2-phenyl-5-oxazolone	A AA	228 272 359	4.3 4.3 4.5	S31 B40	7851 7852
	4-(p-nitrobenzylidene)-2-phenyl-2-oxazolin-5-one; 4-(p-nitrobenzylidene)-2-phenyl-5-oxazolone	A AA	228 316 271 376	4.2 4.1 4.1 4.6	S31 B40	7853 7854
O-6-C:ON5:O -6-N:O O	4-(o-methoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(o-methoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	396	4.4	B40	7855





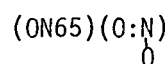
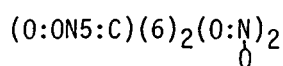
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	4-(m-methoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(m-methoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	373	4.3	B40	7856
	4-(p-methoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(p-methoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	394	4.5	B40	7857
	4-(o-methoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(o-methoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	393	4.4	B40	7858
	4-(m-methoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(m-methoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	366	4.5	B40	7859
	4-(p-methoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(p-methoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	392	4.6	B40	7860
	4-(o-methoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(o-methoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	283 409	3.9 4.4	B40	7861
	4-(m-methoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(m-methoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	270 284 387	4.1 4.1 4.4	B40	7862
	4-(p-methoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(p-methoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	297 411	4.1 4.5	B40	7863
	4-(p-acetoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(p-acetoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	368	4.4	B40	7864
	4-(m-acetoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(m-acetoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	363	4.5	B40	7865
	4-(p-acetoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(p-acetoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	368	4.5	B40	7866



system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
	4-(m-acetoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(m-acetoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	279 379	4.1 4.5	B40	7867
	4-(p-acetoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(p-acetoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	282 385	4.1 4.5	B40	7868
$O_2-6-C:ON5:O -6-N:O$	4-(2,3-dimethoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(2,3-dimethoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	371	4.4	B40	7869
	4-(3,4-dimethoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-dimethoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	414	4.5	B40	7870
	4-(2,3-dimethoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(2,3-dimethoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	371	4.5	B40	7871
	4-(3,4-dimethoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-dimethoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	408	4.5	B40	7872
	4-(2,3-dimethoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(2,3-dimethoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	285 388	4.0 4.5	B40	7873
	4-(3,4-dimethoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-dimethoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	308 426	4.1 4.5	B40	7874
	4-(3,4-methylenedioxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-methylenedioxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	405	4.5	B40	7875
	4-(3,4-methylenedioxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-methylenedioxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	404	4.5	B40	7876
	4-(3,4-methylenedioxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(3,4-methylenedioxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	308 421	4.1 4.5	B40	7877



system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
	4-(3-acetoxy-4-methoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(3-acetoxy-4-methoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	391	4.5	B40	7878
	4-(4-acetoxy-3-methoxybenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(4-acetoxy-3-methoxybenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	382	4.4	B40	7879
	4-(3-acetoxy-4-methoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(3-acetoxy-4-methoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	388	4.5	B40	7880
	4-(4-acetoxy-3-methoxybenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(4-acetoxy-3-methoxybenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	378	4.5	B40	7881
	4-(3-acetoxy-4-methoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(3-acetoxy-4-methoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	296 407	4.1 4.5	B40	7882
	4-(4-acetoxy-3-methoxybenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(4-acetoxy-3-methoxybenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	287 395	4.1 4.5	B40	7883
$O_3-6-C:ON5:O -6-N:O$ 	2-(o-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-2-oxazolin-5-one; 2-(o-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-5-oxazolone	AA	400	4.4	B40	7884
	2-(m-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-2-oxazolin-5-one; 2-(m-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-5-oxazolone	AA	397	4.5	B40	7885
	2-(p-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-2-oxazolin-5-one; 2-(p-nitrophenyl)-4-(3,4,5-trimethoxybenzylidene)-5-oxazolone	AA	310 413	4.2 4.4	B40	7886
$O:N-6- O:ON5:C-6-N:O$ 	4-(o-nitrobenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(o-nitrobenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	353	4.3	B40	7887
	4-(m-nitrobenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(m-nitrobenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	346 358	4.4 4.4	B40	7888



system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
	4-(p-nitrobenzylidene)-2-(o-nitrophenyl)-2-oxazolin-5-one; 4-(p-nitrobenzylidene)-2-(o-nitrophenyl)-5-oxazolone	AA	373	4.5	B40	7889
	4-(o-nitrobenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(o-nitrobenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	355	4.3	B40	7890
	4-(m-nitrobenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(m-nitrobenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	344 359	4.4 4.4	B40	7891
	4-(p-nitrobenzylidene)-2-(m-nitrophenyl)-2-oxazolin-5-one; 4-(p-nitrobenzylidene)-2-(m-nitrophenyl)-5-oxazolone	AA	373	4.5	B40	7892
	4-(o-nitrobenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(o-nitrobenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	261 364	4.2 4.4	B40	7893
	4-(m-nitrobenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(m-nitrobenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	271 361	4.2 4.5	B40	7894
	4-(p-nitrobenzylidene)-2-(p-nitrophenyl)-2-oxazolin-5-one; 4-(p-nitrobenzylidene)-2-(p-nitrophenyl)-5-oxazolone	AA	278 383	4.0 4.6	B40	7895
O5-C:ON5:O -6	4-(2-furfurylidene)-2-phenyl-2-oxazolin-5-one; 4-(2-furfurylidene)-2-phenyl-5-oxazolone	A	228 312	4.1 4.3	S31	7896
		C	390	4.6	B51	7897
O5-C:C-C:ON5:O -6	4-[3-(2-furyl)allylidene]-2-phenyl-2-oxazolin-5-one; 4-[3-(2-furyl)allylidene]-2-phenyl-5-oxazolone	A	226 348	4.1 4.5	S31	7898
ON65	benzoxazole	A	231 270	3.9 3.5	P2	7899
C-ON65	2-methylbenzoxazole	A	231 276	4.0 3.6	P2	7900
N-ON65	2-anilinobenzoxazole	A	288	4.4	P2	7901
S-ON65	2-methylthiobenzoxazole	A	278	4.1	P2	7902
ON65-N:O	5-nitrobenzoxazole	A	224 270	4.4 3.8	P2	7903
	6-nitrobenzoxazole	A	282	4.0	P2	7904
C-ON65-N:O	2-methyl-5-nitrobenzoxazole	A	226 274	4.4 3.8	P2	7905

(ON65)(O:N)
O(ON65)(6)(O:N)
O

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
N- ON65 -N:O O	2-methyl-6-nitrobenzoxazole	A	290	4.0	P2	7906
	2-anilino-6-nitrobenzoxazole	A	261 359	4.3 4.3	P2	7907
S- ON65 -N:O O	2-methylthio-6-nitrobenzoxazole	A	243 321	4.0 4.2	P2	7908
ON65-6	2-phenylbenzoxazole	A	234 299	3.9 4.4	P2	7909
ON65-6-C	2-(o-tolyl)benzoxazole	A	236 292	3.9 4.3	P2	7910
	2-(m-tolyl)benzoxazole	A	240 294	3.8 4.4	P2	7911
	2-(p-tolyl)benzoxazole	A	240 302	3.8 4.4	P2	7912
ON65-6-N	2-(m-aminophenyl)benzoxazole	A	228 296	4.3 4.4	P2	7913
	2-(p-aminophenyl)benzoxazole	A	222 327	4.1 4.5	P2	7914
	2-(p-dimethylaminophenyl)benzoxazole	A	230 345	4.0 4.7	P2	7915
ON65-6-O	2-(p-acetamidophenyl)benzoxazole	A	316	4.5	P2	7916
	2-(o-hydroxyphenyl)benzoxazole	A	293	4.3	P2	7917
		*1	292	4.3	P2	7918
		*2	220 286 352	4.4 4.1 4.1	P2	7919
	2-(p-hydroxyphenyl)benzoxazole	A	305	4.5	P2	7920
6- ON65 -N:O O	2-(p-methoxyphenyl)benzoxazole	A	306	4.5	P2	7921
	5-nitro-2-phenylbenzoxazole	A	214 269	4.2 4.5	P2	7922
	6-nitro-2-phenylbenzoxazole	A	258	4.1	P2	7923
ON65-6-N:O O	2-(m-nitrophenyl)benzoxazole	A	222 265 295	4.2 4.3 4.3	P2	7924

*1 1N HCl/W *2 1N NaOH/W

(ON65)(6)(0:N)
O(ON₂5:0)(6)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-(p-nitrophenyl)benzoxazole	A	232 327	4.1 4.3	P2	7925
C-ON65-6-N:O O	5-methyl-2-(p-nitrophenyl)benzoxazole	A	234 334	4.1 4.3	P2	7926
N-6-ON65-N:O O	2-(p-acetamidophenyl)-5-nitrobenzoxazole	A	225 310	4.2 4.5	P2	7927
O:N-ON65-6-N:O O O	5-nitro-2-(p-nitrophenyl)benzoxazole	A	232 324	4.2 4.3	P2	7928
	6-nitro-2-(p-nitrophenyl)benzoxazole	A	332	4.5	P2	7929
C-ON65:C-N66-C	1',3-diethyloxa-2'-cyanine iodide	M	436		B136	7930
C-ON65:C-C:C-ON65-C	3,3'-diethyloxacarbocyanine iodide	M	482.5		B28	7931
C-ON65:C-C:C-ON65-C C	3,3'-diethyl-9-methyloxacarbocyanine iodide	M	488.5		B28	7932
C ₃ -ON65:C-C:C-ON65-C ₃	3,3'-diethyl-5,5',6,6'-tetramethyloxa-carbocyanine iodide	M	495.6		B28	7933
C ₃ -ON65:C-C:C-ON65-C ₃ C	3,3'-diethyl-9-methyl-5,5',6,6'-tetra-methyloxacarbocyanine iodide	M	501		B28	7934
6-ON65:C-C:C-ON65-6 C C	3,3'-diethyl-5,5'-diphenyloxacarbo-cyanine iodide	M	494		B28	7935
6-ON65:C-C:C-ON65-6 C C C	3,3'-diethyl-9-methyl-5,5'-diphenyl-oxacarbocyanine iodide	M	500		B28	7936
ON65:O	2-oxobenzoxazoline; 2-benzoxazolone		274	3.7	M68	7937
C-ON66:O	2-methyl-4H-benz[d]-1,3-oxazin-4-one; aceanthranil	D	250 305	3.9 3.5	Z4	7938
N-ON6 ₃ :N	3,7-diaminophenoxazinium chloride		577	4.9	G24	7939
NC-ON6 ₃ :N	7-amino-3-(dimethylamino)-2-methyl-phenoxazinium chloride; Cresyl Blue	0.0	595		M33	7940
ON6 ₄ :N	9-(dimethylamino)benzo[a]phenoxazinium chloride	W	531 572 620		G12	7941
C-ON ₂ 5:O	3-cyclohexylsydnone		291	4.1	B23g	7942
ON ₂ 5:O -6	3-phenylsydnone		234 310	4.0 3.7	B23g	7943
6-ON ₂ 5:O -6	3,4-diphenylsydnone		241 333	4.0 4.0	B23g	7944

(ON₂65)(ON₃65)(6)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
OC ₃ -ON ₂ 65	5-acetyl-2,6,7-trimethylpyrido[3,2-d]-oxazole	A	232 279	4.0 4.0	A18	7945
ON ₂ 65:O	benzofurazan 1-oxide	A	347	4.2	S47	7946
ON ₂ 65:O -6	4-phenylbenzofurazan 1-oxide	A	264 380	3.9 4.1	S47	7947
	7-phenylbenzofurazan 1-oxide	A	266	4.2	S47	7948
ON ₂ 665	oxazolo[3,4-c]quinoline	A	248 297	4.2 3.8	O1	7949
Cl-ON ₂ 665	8-chlorooxazolo[3,4-c]quinoline	A	235-45 302	4.2 3.8	O1	7950
ON ₃ 65-6	2-phenylpyrimid[5,4-d]oxazole	A	290 295	4.5 4.5	B80	7951
S-ON ₃ 65-6	5-methylthio-2-phenylpyrid[5,4-d]oxazole	A	276 329	4.3 4.5	B80	7952

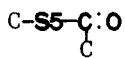
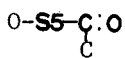
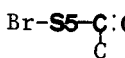
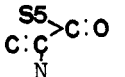
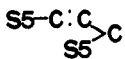
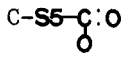
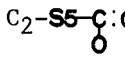
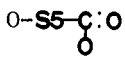
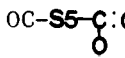
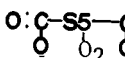
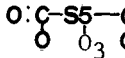
PART 48. AROMATIC CHROMOPHORES WITH S HETERO-ATOM(S)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S5	thiophene	A	230	3.8	C7	7953
		H	235	3.7	M30	7954
		iO	231	3.8	B83	7955
C-S5	2-methylthiophene	A	232	3.9	C7	7956
		iO	234	3.9	H11	7957
	3-methylthiophene	iO	235	3.7	H11	7958
C₂-S5	2,3-dimethylthiophene	iO	233	3.8	H11	7959
	2,5-dimethylthiophene	iO	236	3.9	H11	7960
	3,4-dimethylthiophene	iO	238	3.8	H11	7961
Hg-S5	2-(chloromercury)thiophene	A	236.5	4.0	L6	7962
	di(2-thienyl)mercury	A	246	4.3	L6	7963
O-S5	2-hydroxythiophene; thiophen-2-ol	W	263	3.5	H93	7964
	2-methoxythiophene	A	244	3.5	H93	7965
		Pe	241	3.6	S45	7966
OC-S5	2-methoxy-5-methylthiophene	Pe	249	3.7	S45	7967
S-S5	2-thiocyanatothiophene; 2-thienyl thiocyanate	A	239	2.0	C28u	7968
S₂-S5	3,4-dimercaptothiophene	iO	227	3.8	H11	7969
			251	3.9		
			332	3.6		
			412	3.7		
Cl-S5	2-chlorothiophene	iO	236	3.9	B83	7970
Cl₂-S5	2,5-dichlorothiophene	iO	252	3.9	B83	7971
Br-S5	2-bromothiophene	iO	235-6	4.0	B83	7972
Br₂-S5	2,3-dibromothiophene	iO	239.5	3.9	H11	7973
	2,5-dibromothiophene	iO	252	4.0	B83	7974
I-S5	2-iodothiophene	iO	243	4.0	B83	7975
I₂-S5	2,5-diiodothiophene	iO	266	4.2	B83	7976
			315	2.4		

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S5-S5	2,2'-bithienyl	B	305	4.1	S35	7977
		H	301	4.1	S35	7978
S5-S5-S5	2,2':5',2''-terthienyl	B	355	4.3	S35	7979
		H	251 350	4.0 4.4	S35	7980
C-S5-S5-S5	5-methyl-2,2':5',2''-terthienyl	H	251 355	4.0 4.4	S35	7981
C-S5-S5-S5-C	5,5''-dimethyl-2,2':5',2''-terthienyl	H	251 359	4.0 4.4	S35	7982
S5-S5-S5-S5	2,2':5',2'':5'',2'''-quaterthienyl	B	391	4.5	S35	7983
		H	250 385	4.2 4.5	S35	7984
S5-S5-S5-S5-S5	2,2':5',2'':5'',2''':',2''''-quinquethienyl	B	418	4.6	S35	7985
S5-C:C	2-vinylthiophene	iO	273	4.0	F49	7986
S5-C:C-C	4-(2-thienyl)-3-buten-2-ol	A	280	4.1	B119	7987
S5-C:C-C₂ C	1-cyclohexylidene-3-(dimethylamino)- 1-(2-thienyl)propane	A	277	4.0	J1	7988
S5-C:C-C:C	1-(2-thienyl)-1,3-butadiene	A	307	4.3	B119	7989
S5-C:N-N C	2-acetylthiophene 2,4-dinitrophenyl- hydrazone	A	392	4.4	S87	7990
S5-C:N-N:C-S5 C C	bis[1-(2-thienyl)ethylidene]hydrazine; 2-acetylthiophene azine	A	265 335	4.1 4.2	S88	7991
S5-C:N	2-cyanothiophene	iO	243	4.0	B83	7992
S5 N:C>C:C-C₂	2-cyclohexylidene-2-(2-thienyl)aceto- nitrile	A	289	4.2	J1	7993
S5-C:O C	2-acetylthiophene	A	259	4.0	H83	7994
		iO	256.5	4.0	H11	7995
	4,4,4-trifluoro-1-(2-thienyl)-1,3- butanedione	cH	~315-22	4.2	F49	7996
	1,1,1,2,2,3,3-heptafluoro-6-(2-thienyl)- 4,6-hexanedione	cH	320		S2g	7997
	1-acetoxy-2-(dichloroacetamido)-3-(2- thienyl)-3-propanone	A	266	4.0	H83	7998

(S5)(0:C)

(S5)(0:C)₂

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-acetyl-5-methylthiophene	A	295	4.1	C7	7999
	2-acetyl-5-methoxythiophene	A	256 314	3.6 4.2	S45	8000
	3-acetyl-2-methoxythiophene	A	242 303	4.2 4.0	S45	8001
	2-acetyl-5-bromothiophene	A	268 294	3.9 4.1	C7	8002
	2-[2-(dichloroacetamido)acryloyl]-thiophene	A	266	4.0	H83	8003
	1-(2-thenoyl)-2-(2-thienyl)ethylene	A	285 354	3.9 4.6	S89	8004
	5-methyl-2-thenoic acid		273	3.9	S45	8005
	2,5-dimethyl-3-thenoic acid		245 275	3.9 3.2	S45	8006
	5-methoxy-2-thenoic acid	W	243 287	3.5 3.9	S45	8007
	2-methoxy-5-methyl-3-thenoic acid	W	238 279	3.7 3.6	S45	8008
	5-methoxy-2-methyl-3-thenoic acid		234 275	3.8 3.4	M42	8009
	methyl 3,4-dihydroxy-2,5-thiophene-dicarboxylate	*1	290 330	4.2 3.8	E1	8010
		*2	308 ~375	4.2 3.5	E1	8011
		*3	322 387	4.3 4.0	E1	8012
	2,5-diethoxycarbonyl-3,4-dihydroxythiophene 1-oxide	A	266 ~354	3.9 3.5	E1	8013
		AA	268 ~350	4.2 4.0	E1	8014
		W	270 355	4.1 3.7	E1	8015

*1 1M HCl/M *2 conc. H₂SO₄ *3 5% KOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		*1	286 328	4.1 3.8	E1	8016
		*2	258 ~350	4.0 3.7	E1	8017
		*3	325	4.1	E1	8018
	2,5-diethoxycarbonyl-3,4-dihydroxythiophene 1,1-dioxide	*1	256 355	4.0 3.7	E1	8019
		*2	255 348	3.8 3.5	E1	8020
		*3	272 350	4.0 3.5	E1	8021
	2-benzamido-3-(2-thienyl)acrylic acid	A	227 306-7	4.1 4.2	G7	8022
	2-mercapto-3-(2-thienyl)acrylic acid	A	239 310	4.0 4.1	C4	8023
	2,2'-dithiobis[3-(3-thienyl)acrylic acid]	A	293	4.4	C4	8024
	2-nitrothiophene	10	268-72	3.8	B83	8025
	2-methyl-5-nitrothiophene	A	330	4.0	H83	8026
	3,5-dinitro-2-thienylamine		245 323 376	4.0 4.1 4.0	H94	8027
	2-methoxy-3,5-dinitrothiophene		246 300	4.3 4.3	H94	8028
	2,5-dichloro-3,4-dinitrothiophene	10	237 282-4	4.1 3.4	B83	8029
	1-nitro-2-(2-thienyl)ethane	cH	330		S2g	8030
	2-nitro-1-(2-thienyl)propene	cH	331		S2g	8031
S5-6	2-phenylthiophene	A	283	4.0	E14	8032
	3-phenylthiophene	A	227 258	4.0 4.0	E14	8033

*1 1M HCl/M *2 conc. H₂SO₄ *3 5% KOH/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
0-S5-6	5-phenylthiophen-2-ol	A	305	3.8	K52	8034
		C	243	4.1	K52	8035
	5-phenylthiophen-3-ol	A	261 300	4.1 4.0	K52	8036
		C	270 336	4.2 3.9	K52	8037
	2-methoxy-5-phenylthiophene	A	281	4.2	K52	8038
		M	304	4.2	K52	8039
	4-methoxy-2-phenylthiophene	A	261 298	3.6 4.0	K52	8040
6-S5-6	2,4-diphenylthiophene	A	257.5		D15	8041
	2,5-diphenylthiophene	A	323		D15	8042
C-6-S5-6-C	2,4-di-(p-tolyl)thiophene	A	262.5		D15	8043
$\begin{smallmatrix} 6 & & 6 \\ & \searrow & / \\ & S5 & \\ & / & \searrow \\ 6 & & 6 \end{smallmatrix}$	tetraphenylthiophene	A	239 314	4.4 4.2	T5	8044
$\begin{smallmatrix} S5 \\ & \searrow \\ 6 & & C:N-N \end{smallmatrix}$	2-benzoylthiophene hydrazone	A	255	4.1	S85	8045
$\begin{smallmatrix} S5 & & S5 \\ & \searrow & / \\ 6 & & C:N-N:C \\ & / & \searrow \\ 6 & & 6 \end{smallmatrix}$	1,2-bis[α -(2-thienyl)benzylidene]- hydrazone; 2-benzoylthiophene azine	A	276-8 355	4.3 4.1	S85	8046
$\begin{smallmatrix} S5 \\ & \searrow \\ 6 & & C:O \end{smallmatrix}$	2-benzoylthiophene	A	226 260-90	4.0 3.8	C7	8047
		A	263 293	4.1 4.1	S85	8048
		cH	255 284		S2g	8049
$\begin{smallmatrix} 6 & & S5 \\ & \searrow & / \\ 6 & & C:O \end{smallmatrix}$	3,5-diphenyl-2-thenaldehyde	A	257.5 331.5		D15	8050
$\begin{smallmatrix} S5 \\ & \searrow \\ 6-C:C & & C:O \end{smallmatrix}$	1-phenyl-2-(2-thenoyl)ethylene	A	320	4.3	S89	8051
$\begin{smallmatrix} S5-C:C \\ & \searrow \\ 6 & & C:O \end{smallmatrix}$	1-benzoyl-2-(2-thienyl)ethylene	A	275 345	4.0 4.3	S89	8052
$\begin{smallmatrix} 6-S5-C:O \\ & \searrow \\ & O \end{smallmatrix}$	5-phenyl-2-thenoic acid	A	310	4.3	C5	8053
$\begin{smallmatrix} N6 & & N6 \\ & \searrow & / \\ N6 & & S5 \\ & / & \searrow \\ N6 & & N6 \end{smallmatrix}$	tetra-(4-pyridyl)thiophene	A	268 315	4.4 4.2	T5	8054

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S5-N ₄ 5	5-(2-thienyl)-1H-tetrazole	A	255 268	4.0 4.0	E14	8055
	5-(3-thienyl)-1H-tetrazole	A	248	4.0	E14	8056
S5-N ₄ 5-C	N,N-dimethyl-2-[5-(2-thienyl)-2H-tetrazol-2-yl]ethylamine	*1	271	3.9	E13u	8057
	N,N,N-trimethyl-2-[5-(2-thienyl)-2H-tetrazol-2-yl]ethylammonium iodide	A	219	4.2	E13u	8058
	N,N-dimethyl-2-[5-(3-thienyl)-2H-tetrazol-2-yl]ethylamine	*1	245	4.1	E13u	8059
	N,N,N-trimethyl-2-[5-(3-thienyl)-2H-tetrazol-2-yl]ethylammonium iodide	A	245	4.1	E13u	8060
$\begin{array}{c} \text{S5} \\ \text{O5-C:C} > \text{C:O} \end{array}$	1-(2-furyl)-2-(2-thienyl)ethylene	A	243 353	3.7 4.4	S89	8061
	1-(2-furoyl)-2-(2-thienyl)ethylene	A	355	4.7	S89	8062
$\begin{array}{c} \text{S5-C:C} \\ \text{O5} > \text{C:O} \end{array}$	3-benzylidene-2,3-dihydro-5-(2-thienyl)-2-furanone	A	278 400	4.2 4.5	H6	8063
$\begin{array}{c} \text{S5-C:ON5:O} \\ \text{C} \end{array}$	2-methyl-4-(2-thenylidene)-2-oxazolin-5-one; 2-methyl-4-(2-thenylidene)-5-oxazolone	C	363	4.4	C113	8064
S5-C:ON5:O -6	2-phenyl-4-(2-thenylidene)-2-oxazolin-5-one; 2-phenyl-4-(2-thenylidene)-5-oxazolone	C	270 393-5	4.2 4.6	C112	8065
C-S5-C:ON5:O -6	4-(3-methyl-2-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(3-methyl-2-thenylidene)-2-phenyl-5-oxazolone	C	271 406-8	4.2 4.6	C112	8066
	4-(5-methyl-2-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(5-methyl-2-thenylidene)-2-phenyl-5-oxazolone	C	272 410	4.1 4.6	C112	8067
C ₂ -S5-C:ON5:O -6	4-(3,4-dimethyl-2-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(3,4-dimethyl-2-thenylidene)-2-phenyl-5-oxazolone	C	271-2 411-4	4.1 4.6	C113	8068
	4-(4,5-dimethyl-2-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(4,5-dimethyl-2-thenylidene)-2-phenyl-5-oxazolone	C	272 421-2	4.1 4.6	C113	8069
	4-(2,5-dimethyl-3-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(2,5-dimethyl-3-thenylidene)-2-phenyl-5-oxazolone	C	272 390-1	4.0 4.5	C113	8070

*1 HCl salt

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C ₃ -S ₅ -C:ON5:O -6	2-phenyl-4-(3,4,5-trimethyl-2-thenylidene)-2-oxazolin-5-one; 2-phenyl-4-(3,4,5-trimethyl-2-thenylidene)-5-oxazolone	C	273 429	4.0 4.6	C113	8071
	2-phenyl-4-(2,4,5-trimethyl-3-thenylidene)-2-oxazolin-5-one; 2-phenyl-4-(2,4,5-trimethyl-3-thenylidene)-5-oxazolone	C	273 387-8	4.0 4.2	C113	8072
Cl-S ₅ -C:ON5:O -6	4-(5-chloro-2-thenylidene)-2-phenyl-2-oxazolin-5-one; 4-(5-chloro-2-thenylidene)-2-phenyl-5-oxazolone	C	274 406	4.1 4.6	C112	8073
6-S ₆ -6 C	2-methyl-4,6-diphenylthioniabenzene perchlorate	*1	364		W44g	8074
	4-methyl-2,6-diphenylthioniabenzene perchlorate	*1	393		W44g	8075
6-S ₆ -6 6	2,4,6-triphenylthioniabenzene perchlorate		375		W44g	8076
N-6-S ₆ -6 6	2-(p-dimethylaminophenyl)-4,6-diphenylthioniabenzene perchlorate		610		W44g	8077
	4-(p-dimethylaminophenyl)-2,6-diphenylthioniabenzene perchlorate		583		W44g	8078
N-6-S ₆ -6-N 6	2,4-bis(p-dimethylaminophenyl)-6-phenylthioniabenzene perchlorate		615		W44g	8079
	2,6-bis(p-dimethylaminophenyl)-4-phenylthioniabenzene perchlorate		660		W44g	8080
N-6-S ₆ -6-N N-6	2,4,6-tris(p-dimethylaminophenyl)thioniabenzene perchlorate		576		W44g	8081
O-6-S ₆ -6 6	2-(p-methoxyphenyl)-4,6-diphenylthioniabenzene perchlorate		460		W44g	8082
	4-(p-methoxyphenyl)-2,6-diphenylthioniabenzene perchlorate		430		W44g	8083
O-6-S ₆ -6-O 6	2,4-bis(p-methoxyphenyl)-6-phenylthioniabenzene perchlorate		442		W44g	8084
	2,6-bis(p-methoxyphenyl)-4-phenylthioniabenzene perchlorate		486		W44g	8085
O-6-S ₆ -6-O O-6	2,4,6-tris(p-methoxyphenyl)thioniabenzene perchlorate		448		W44g	8086

*1 AcOH + HClO₄

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-6-N$	2-(p-dimethylaminostyryl)-4,6-diphenylthioniabenzene perchlorate		685		W44g	8087
	4-(p-dimethylaminostyryl)-2,6-diphenylthioniabenzene perchlorate		680-5		W44g	8088
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-6-O$	2-(p-methoxystyryl)-4,6-diphenylthioniabenzene perchlorate		520-2		W44g	8089
$\begin{smallmatrix} 0-6 \\ 0-6 \end{smallmatrix} > S6-C:C-6-N$	2-(p-dimethylaminostyryl)-4,6-bis(p-methoxyphenyl)thioniabenzene perchlorate		680		W44g	8090
$N-6-C:C-\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-6-N$	2,6-bis(p-dimethylaminostyryl)-4-phenylthioniabenzene perchlorate		755		W44g	8091
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-C:C-6-N$	4-[4-(p-dimethylaminophenyl)-1,3-butadienyl]-2,6-diphenylthioniabenzene perchlorate	AA	755-60		W44g	8092
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-\begin{smallmatrix} 6-O \\ 6-O \end{smallmatrix}$	2-[2,2-bis(p-methoxyphenyl)vinyl]-4,6-diphenylthioniabenzene perchlorate		545		W44g	8093
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6-C:C-C:C-\begin{smallmatrix} 6-O \\ 6-O \end{smallmatrix}$	4-[4,4-bis(p-methoxyphenyl)-1,3-butadienyl]-2,6-diphenylthioniabenzene perchlorate	AA	620		W44g	8094
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6:C-O\begin{smallmatrix} 6 \\ 6 \end{smallmatrix}$	2-[(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)methyl]-4,6-diphenyl-oxoniabenzene perchlorate	AA	630		W44g	8095
	4-[(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)methyl]-4,6-diphenyl-oxoniabenzene perchlorate	Ac	588-90		W44g	8096
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6:C-S\begin{smallmatrix} 6 \\ 6 \end{smallmatrix}$	2-[(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)methyl]-4,6-diphenylthioniabenzene perchlorate	Ac	650		W44g	8097
	4-[(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)methyl]-4,6-diphenylthioniabenzene perchlorate	Ac	628		W44g	8098
$\begin{smallmatrix} 6 \\ 6 \end{smallmatrix} > S6:C-C:C-S\begin{smallmatrix} 6 \\ 6 \end{smallmatrix}$	2-[3-(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)propenyl]-4,6-diphenylthioniabenzene perchlorate	Ac	820		W44g	8099
	4-[3-(3,5-diphenyl-4-thia-2,5-cyclohexadienylidene)propenyl]-2,6-diphenylthioniabenzene perchlorate	Ac	753		W44g	8100
$O_2-S6:O$	4-oxo-4H-thiabenzene 1,1-dioxide	D	240 380	3.9 1.0	F6u	8101
S65	benzo[b]thiophene; thianaphthene	A	227 298	4.5 3.4	C9n	8102

system	compound	solv.	λ_{\max}	loge	ref.	no.
		10	225 297	4.5 3.5	H11	8103
C-S65	2-methylbenzo[b]thiophene		288	4.0	H7	8104
	3-methylbenzo[b]thiophene		289	4.4	H7	8105
C4-S65	1,3,4,7-tetramethylbenzo[c]thiophene	A	231 355	4.5 3.9	D6	8106
O2-S65	5,6-dimethoxybenzo[b]thiophene	A	236 307	4.4 3.5	C5	8107
O2-S65	benzothiophene 1,1-dioxide	A	223 307	4.2 3.2	T3	8108
C-S65-C:N-C C	3,4-dihydro-1-methyl-9,2-thiazafuorene	A	252 306	4.1 4.1	H53	8109
S65-C:O O	benzo[b]thiophene-2-carboxylic acid	A	229 276 310	4.3 4.2 3.6	C5	8110
O2-S65-C:O O	5,6-dimethoxybenzo[b]thiophene-2-carboxylic acid	A	243 301	4.2 4.2	C5	8111
C-S65-C:N-C 6	3,4-dihydro-1-phenyl-9,2-thiazafuorene	A	256 317	4.3 4.1	H53	8112
S65-C:ON5:O -6	4-(3-benzo[b]thenylidene)-2-phenyl-2-thiazolin-5-one; 4-(3-benzo[b]thenylidene)-2-phenyl-5-thiazolone	C	292 411-2	4.3 4.5	C113	8113
O:S65:O C	4,7-dihydro-5-methylbenzo[b]thiophene-4,7-dione	A	226 263 332	4.0 4.2 3.4	T3	8114
	4,7-dihydro-6-methylbenzo[b]thiophene-4,7-dione	A	220 265 325	4.0 4.1 3.4	T3	8115
O:S65:C-S65-O	bis[2-(2,3-dihydro-3-oxobenzo[b]-thiophene)]methineoxonol	A	592		G15	8116
		*1	482		G15	8117
	[2-(2,3-dihydro-3-oxobenzo[b]thiophene)]-[3(2,3-dihydro-2-oxobenzo[b]thiophene)]methineoxonol isomer A	A	566		G15	8118
		*1	465		G15	8119
	isomer B	D	370	4.4	G15	8120

*1 C₂H₅-O-CH₂-CH₂-OH with HCl

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	bis[3-(2,3-dihydro-2-oxobenzo[b]thiophene)]methineoxonol	A	500		G15	8121
		*1	430		G15	8122
	[2-(2,3-dihydro-6-ethoxy-3-oxobenzo[b]thiophene)][3-(2,3-dihydro-2-oxobenzo[b]thiophene)]methineoxonol	A	490 512		G15	8123
		*1	482		G15	8124
	[2-(2,3-dihydro-3-oxobenzo[b]thiophene)]-[3-(2,3-dihydro-6-ethoxy-2-oxobenzo[b]thiophene)]methineoxonol isomer A	A	578		G15	8125
	isomer B	D	378	4.5	G15	8126
O:S65:S65:O	2,2',3,3'-tetrahydro-3,3'-dioxo-2,2'-bibenzo[b]thienylidene; thioindigo		546		F39	8127
O:S65:S65:O Cl Cl	5,5'-dichloro-2,2',3,3'-tetrahydro-3,3'-dioxo-2,2'-bibenzo[b]thienylidene; 5,5'-dichlorothioindigo		550		F39	8128
	6,6'-dichloro-2,2',3,3'-tetrahydro-3,3'-dioxo-2,2'-bibenzo[b]thienylidene; 6,6'-dichlorothioindigo		541		F39	8129
O:S65:S65:O Br Br	5,5'-dibromo-2,2',3,3'-tetrahydro-3,3'-dioxo-2,2'-bibenzo[b]thienylidene; 5,5'-dibromothioindigo		559		F39	8130
	6,6'-dibromo-2,2',3,3'-tetrahydro-3,3'-dioxo-2,2'-bibenzo[b]thienylidene; 6,6'-dibromothioindigo		541		F39	8131
S66:O C:O O	4-oxo-4H-1-thianaphthalene-2-carboxylic acid	A	251 350	4.3 3.9	S44	8132
S665	dibenzothiophene		233 286 325	4.9 4.2 3.6	C79	8133
	naphtho[2,3-b]thiophene	A	243 291	4.6 4.0	C5	8134
N-S665	2-aminodibenzothiophene	A	242 282	4.7 4.2	S14	8135
	3-aminodibenzothiophene		237 297	4.6 3.9	S9	8136

*1 C₂H₅-O-CH₂-CH₂OH with HCl

(S665)

(S665)(O:N)
0

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
O-S665	2-acetamidodibenzothiophene	A	241	4.7	S14	8137
			277	4.3		
			299	4.3		
S665-C(=O)	dibenzothiophene 9-oxide	A	221	4.5	S14	8138
			249	4.4		
S665-C(=O)	naphtho[1,2-a]thiophene-2-carboxylic acid	A	272	4.7	C5	8139
			301	4.1		
S665-C(=O)	naphtho[2,1-a]thiophene-2-carboxylic acid	A	236	4.6	C5	8140
			316	4.2		
S665-N(=O)	1-nitrodibenzothiophene	A	225	4.7	S10	8141
			265	4.2		
S665-N(=O)	2-nitrodibenzothiophene	A	222	4.5	S11	8142
			320	4.2		
S665-N(=O)	3-nitrodibenzothiophene	A	240	4.4	S10	8143
			304	4.0		
N-S665-N(=O)	2-amino-1-nitrodibenzothiophene	A	237	4.6	C79	8144
			385	3.8		
N-S665-N(=O)		*1	222	4.7	C79	8145
			393	3.7		
N-S665-N(=O)	3-amino-2-nitrodibenzothiophene	A	260	4.3	S11	8146
			349	4.0		
N-S665-N(=O)		*1	220	4.5	S11	8147
			330	4.0		
N-S665-N(=O)	3-amino-4-nitrodibenzothiophene	A	237	4.6	S11	8148
			337	3.6		
N-S665-N(=O)		*2	234	4.7	S11	8149
			293	3.6		
N-S665-N(=O)	2-acetamido-1-nitrodibenzothiophene	A	231	4.4	C79	8150
			298	4.4		
N-S665-N(=O)			363	3.7		
			445	3.6		
N-S665-N(=O)	3-acetamido-2-nitrodibenzothiophene	A	225	4.4	S11	8151
			268	4.2		
N-S665-N(=O)			313	4.0		
N-S665-N(=O)	3-(ethoxycarbonylamino)-4-nitrodibenzothiophene	A	230	4.7	S11	8152
			290	3.7		

*1 6N H₂SO₄/50% A *2 50% HCl/A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
S6 ₃ :N65	6-(10H-9-thiaanthr-10-ylidene)tryptophan	*1	557		D3	8153
S6 ₃ :N665	3-(10H-9-thiaanthr-10-ylidene)carbazole	*1	520 607		D3	8154
S6 ₃ : O: N ₂ 6: O	perhydro-2,4,6-trioxo-5-(10H-9-thiaanthr-10-ylidene)pyrimidine; 5-(10H-9-thiaanthr-10-ylidene)barbituric acid	*1	595		D3	8155
S6 ₃ 5	phenanthro[9,10-c]thiophene	C	265 321	4.9 3.8	D6	8156
	benzo[b]naphtho[1,2-d]thiophene	iO	252 350	4.7 3.5	K58	8157
C ₂ -S6 ₃ 5	7,11-dimethylphenanthro[2,3-b]thiophene	A	279 345	4.8 4.2	J17	8158
C ₂ -S ₂ 55	4,6-dimethylthiopheno[2,3-c]thiophene	A	241 314	4.1 3.9	D5	8159

*1 1% H₂SO₄/dil. AA

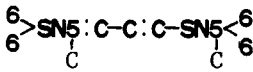
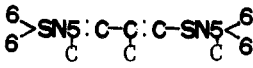
PART 49. AROMATIC CHROMOPHORES WITH S AND N HETERO-ATOMS

system	compound	solv.	$\lambda_{\max.}$	log ϵ	ref.	no.
SN5	thiazole	A	240	3.6	R40	8160
C-SN5	4-methylthiazole	*1	250.5	3.6	R40	8161
C₂-SN5	2,4-dimethylthiazole	*1	253.5	3.7	R40	8162
	3-ethyl-4-methylthiazolium iodide		226	4.1	R40	8163
N-SN5	2-aminothiazole	0.3	253	3.9	V3	8164
		11.0	253	3.8	V3	8165
	2-benzenesulfonamidothiazole	7.0	275	4.0	V3	8166
		11.0	268	3.9	V3	8167
		*2	279	4.1	V3	8168
	2-(p-aminobenzenesulfonamido)thiazole; 2-sulfanilamidothiazole; N ¹ -(2-thiazolyl)sulfanilamide	A	260 290	4.2 4.3	S42	8169
		2.5	283		V3	8170
		7.0	258 280		V3	8171
		11.0	257		V3	8172
		*2	280		V3	8173
	2-(p-acetamidobenzenesulfonamido)- thiazole	7.0	255	4.3	V3	8174
		11.0	255	4.3	V3	8175
		*2	257 281	4.3 4.3	V3	8176
	2-(p-aminobenzenesulfonmethylamido)- thiazole; 2-(N ¹ -methylsulfanilamido)- thiazole	A	290	4.3	S42	8177
NC-SN5	2-amino-4-methylthiazole	W	258	3.8	G17	8178
		*1	259	3.8	C77	8179
	4-methyl-2-sulfanilamidothiazole		292	4.3	B57	8180
NC₂-SN5	2-amino-4,5-dimethylthiazole	A	266	3.9	C77	8181
	4,5-dimethyl-2-(methylamino)thiazole		265		M19	8182

*1 HCl salt *2 2N HCl/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
O-SN5	2-methoxythiazole		238	3.9	K35	8183
C-SN5-C:O 	4-methyl-5-thiazolecarboxylic acid		255.5	3.8	R40	8184
C ₂ -SN5-C:O 	ethyl 2,4-dimethyl-5-thiazolecarboxylate	A	260	4.0	C77	8185
N-SN5-C:O 	ethyl 2-amino-4-thiazolecarboxylate	A	289	3.6	C77	8186
		*1	249	4.0	C77	8187
NC-SN5-C:O 	ethyl 2-amino-4-methyl-5-thiazolecarboxylate	A	300	4.2	C77	8188
		*1	274	4.1	C77	8189
O:C-SN5-C:O 	2-methyl-4,5-thiazoledicarboxylic acid	A	261	3.9	C77	8190
O:C-SN5-C:O 	ethyl 2-amino-4,5-thiazoledicarboxylate	A	306	4.0	C77	8191
		*1	288	3.6	C77	8192
		*2	306	4.1	C77	8193
	tetraphenyl-2,2'-bithiazolyl	C	376	4.3	K9	8194
		*3	475		K9	8195
	tetraxenyl-2,2'-bithiazolyl	C	270 396	4.6 4.3	K9	8196
		*3	471		K9	8197
C-SN5-C:C-6	2-methyl-4-styrylthiazole	*4	292	4.3	S56	8198
N-SN5-C:C-6	2-amino-4-styrylthiazole	A	261 314	4.2 4.3	S56	8199
	2-methyl-5-phenyl-4-styrylthiazole	*4	259 316	4.1 4.3	S56	8200
	2-amino-5-phenyl-4-styrylthiazole	A	270 343	4.3 4.2	S56	8201
		*5	329	4.4	S56	8202
C ₃ -SN5:C-C:6:N	2-(p-dimethylaminostyryl)-3-ethyl-4,5-dihydro-8H-1,6-dithia-3-azaniaindene iodide		490		S59	8203

*1 HCl/A *2 monohydrochloride *3 conc. H₂SO₄ *4 0.1N KOH/A *5 0.1N HCl/A

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
SC ₂ -SN5:C-C:6:N	2-(p-dimethylaminostyryl)-3-ethyl-5,6-dihydro-4H-1,7-dithia-3-azoniaindene iodide		506		S59	8204
C ₃ -SN5:C-C:N5-6 C ₂	1-ethyl-2',5'-dimethyl-1'-phenyl-6,7-dihydro-4H-pyrano[4,3-d]thiazolo-3'-pyrrolocarbocyanine iodide		440		S59	8205
SC ₂ -SN5:C-C:N5-6 C ₂	1-ethyl-2',5'-dimethyl-1'-phenyl-6,7-dihydro-5H-thiopyrano[3,2-d]thiazolo-3'-pyrrolocarbocyanine iodide		450		S59	8206
C-SN5:C-N6-C	1',3-diethylthiazolo-2'-pyridocyanine iodide		444		B138	8207
C-SN5:C-N66-C	1',3-diethylthiazolo-2'-cyanine iodide		466		B138	8208
C ₂ -SN5:C-N66-C	1',3-diethyl-4-methylthiazolo-2'-cyanine iodide		472		B138	8209
C-SN5:C-N6 ₃ -C	1',3-diethyl-5',6'-benzothiazolo-2'-cyanine iodide		482		B138	8210
C ₃ -SN5:C-C:C-ON65-C	3,3'-diethyl-4',5',6',7'-tetrahydro-oxathiacarbocyanine iodide		514		S59	8211
SC ₂ -SN5:C-C:C-ON65-C	1',3-diethyl-6',7'-dihydro-5'H-oxa-thiopyrano[3,2-d]thiazolocarbo-cyanine iodide		530		S59	8212
C ₃ -SN5:C-C:C-SN5-C ₃	1,1'-diethylbis(6,7-dihydro-4H-pyrano-[4,3-d]thiazolo)carbocyanine iodide		570		S59	8213
SC ₂ -SN5:C-C:C-SN5-SC ₂	1,1'-diethylbis(6,7-dihydro-5H-thiopyrano[3,2-d]thiazolo)carbocyanine perchlorate		572		S59	8214
	3,3'-diethyl-4,4',5,5'-tetraphenyl-thiazolocarbo-cyanine iodide		589		B28	8215
	3,3'-diethyl-7-methyl-4,4',5,5'-tetra-phenylthiazolocarbo-cyanine iodide		560		B28	8216
	3,3',7-triethyl-4,4',5,5'-tetraphenyl-thiazolocarbo-cyanine iodide		567		B28	8217
C-SN5:N	2-imino-3-methyl-4-thiazoline	A	258	3.9	S42	8218
	3-methyl-2-sulfanilimido-4-thiazoline	A	260 290	4.2 4.3	S42	8219
SN5:O	2-oxo-4-thiazoline; 2-thiazolone	A	240	3.8	K35	8220

(SN5:O)

(S:SN5:⁰_C)(6)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-SN5:O	4-methyl-4-thiazolin-2-one; 4-methyl-2-thiazolone	*1	247	3.6	R40	8221
	3-methyl-4-thiazolin-2-one; 3-methyl-2-thiazolone	A	240	3.7	K35	8222
C ₂ -SN5:O	4,5-dimethyl-4-thiazolin-2-one; 4,5-dimethyl-2-thiazolone		247		G27	8223
SN5:O -C:C-6	4-styryl-4-thiazolin-2-one; 4-styryl-2-thiazolone	A	315	4.3	S56	8224
		*2	258 333	4.1 4.2	S56	8225
6-SN5:O -C:C-6	5-phenyl-4-styryl-4-thiazolin-2-one; 5-phenyl-4-styryl-2-thiazolone	A	257 290	4.3 4.4	S56	8226
		*2	270 360	4.3 4.3	S56	8227
C ₂ -SN5:S	4,5-dimethyl-4-thiazoline-2-thione		328		G29	8228
SN5:S -C:C-6	4-styryl-4-thiazoline-2-thione	A	271 326	4.1 4.3	S56	8229
6-SN5:S -C:C-6	5-phenyl-4-styryl-4-thiazoline-2-thione	A	~248 281 346	4.1 4.1 4.4	S56	8230
O:SN5: _N C-6	2-amino-5-benzylidene-2-thiazolin-4-one	A	287 335	4.2 4.4	S80	8231
O:SN5:C-6-O	5-(o-methoxybenzylidene)-2,4-dithiazolidinedione		232 348		V2	8232
O:SN5:C-6-O	3-(2-acetamidoethyl)-5-(o-methoxybenzylidene)-2,4-thiazolidinedione	M	236 351		V2	8233
O:SN5: _C ^{N-C} C-6	5-benzylidene-3-ethyl-2-(ethylimino)-4-thiazolidinone	M	326	4.4	V1x	8234
O:SN5: _C ^{N-C} C-6-O	3-ethyl-2-(ethylimino)-5-(o-methoxybenzylidene)-4-thiazolidinone	M	348	4.1	V1x	8235
S:SN5: _C ^O C-6	5-benzylidene-4-oxo-2-thiazolidine-thione; 5-benzylidenerhodanine	A	236 272 374	3.9 3.9 4.5	C4	8236
S:SN5: _C ^O C-6-O ₂	5-(3,4-dimethoxybenzylidene)-4-oxo-thiazolidine-2-thione; 5-(3,4-dimethoxybenzylidene)rhodanine	A	260 288 400	3.9 3.9 4.5	C4	8237

*1 HCl salt *2 0.1N NaOH/A

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -66	5-(naphth-1-ylmethylene)-4-oxo-2-thiazolidinethione; 5-(naphth-1-ylmethylene)rhodanine	A	213 267 390	4.6 4.0 4.4	C4	8238
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5	4-oxo-5-(2-thenylidene)-2-thiazolidine-thione; 5-(2-thenylidene)rhodanine	A	287-9 397	3.9 4.5	C113	8239
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5-C	5-(3-methyl-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(3-methyl-2-thenylidene)rhodanine	A	292 404-6	3.8 4.4	C113	8240
	5-(5-methyl-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(5-methyl-2-thenylidene)rhodanine	A	294 406-8	3.9 4.5	C113	8241
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5-C ₂	5-(3,4-dimethyl-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(3,4-dimethyl-2-thenylidene)rhodanine	A	292 408-9	3.8 4.5	C113	8242
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5-C ₃	5-(3,4,5-trimethyl-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(3,4,5-trimethyl-2-thenylidene)rhodanine	A	298-306 423	3.9 4.5	C113	8243
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5-Cl	5-(5-chloro-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(5-chloro-2-thenylidene)rhodanine	A	285 401	3.9 4.5	C113	8244
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S5-Br	5-(5-bromo-2-thenylidene)-4-oxo-2-thiazolidinethione; 5-(5-bromo-2-thenylidene)rhodanine	A	287 402	4.0 4.6	C113	8245
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -S65	5-(3-benzo[b]thenylidene)-4-oxo-2-thiazolidinethione; 5-(3-benzo[b]-thenylidene)rhodanine	A	286 398	4.0 4.5	C113	8246
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -C:SN5-C ₃	3-ethyl-5-[(3-ethyl-4,5-dihydro-7H-6-oxa-1-thia-3-azaindan-2-ylidene)ethylidene]-4-oxothiazolidine-2-thione		544		S59	8247
S:SN5: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}$ -C:SN5-SC ₂	3-ethyl-5-[(3-ethyl-5,6-dihydro-4H-1,6-dithia-3-azaindan-2-ylidene)ethylidene]-4-oxothiazolidine-2-thione		549		S59	8248
SN65	benzothiazole	A	216 252 285	4.8 3.8 3.2	C24	8249
C-SN65	2-methylbenzothiazole	A	218 252 283	4.3 3.9 3.2	C24	8250
		H	249 280		S2g	8251
N-SN65	2-aminobenzothiazole		263	4.1	E4	8252

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
NC-SN65	2-anilinobenzothiazole	A	222 302	4.3 4.4	C24	8253
	2-amino-6-methylbenzothiazole	A	266	4.3	H90	8254
	2-(isobutylamino)-4-methylbenzothiazole		272	4.1	E4	8255
	2-(ethylamino)-6-methylbenzothiazole		271	4.3	E4	8256
	2-(dimethylamino)-4-methylbenzothiazole		230 283	4.1 4.4	E4	8257
	2-(N-methylacetamido)-6-methylbenzothiazole	A	278 303	4.2 4.1	H90	8258
	3-ethyl-2-piperidinobenzothiazolium perchlorate	M	295	3.9	B141	8259
NC ₂ -SN65	2-amino-4,6-dimethylbenzothiazole		269	4.2	E4	8260
O-SN65	2-methoxybenzothiazole		291 296	3.0 3.0	H91	8261
ON-SN65	2-amino-6-ethoxybenzothiazole		222 266	4.5 4.1	B47	8262
ONC-SN65	2-amino-6-ethoxy-3-methylbenzothiazolium bromide		282	4.0	B47	8263
S-SN65	2-methylthiobenzothiazole		224 280	4.4 4.1	M55	8264
	2-(cyclohexylaminothio)benzothiazole	A	225 279	4.4 4.1	K46	8265
	2-benzothiazolyl disulfide	A	271	4.3	K46	8266
	2-benzothiazolyl tetrasulfide	A	273	4.4	K46	8267
SC-SN65	6-methyl-2-methylthiobenzothiazole		286	4.4	H15	8268
FN-SN65	2-amino-6-fluorobenzothiazole		264	4.1	E4	8269
ClN-SN65	2-amino-6-chlorobenzothiazole		272	4.3	E4	8270
BrN-SN65	2-amino-6-bromobenzothiazole		272	4.2	E4	8271
BrNC-SN65	2-amino-4-bromo-6-methylbenzothiazole		269	4.2	E4	8272
	4-bromo-2-(isobutylamino)-6-methylbenzothiazole		278	4.2	E4	8273
BrClN-SN65	4-bromo-6-chloro-2-(methylamino)benzothiazole		233 280	4.6 4.3	E4	8274

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
IN-SN65	2-amino-6-iodobenzothiazole		276	4.3	E4	8275
SN65-N:O O	6-nitrobenzothiazole	A	219 285	4.2 4.0	C24	8276
C-SN65-N:O O	2-methyl-6-nitrobenzothiazole	A	218 292	4.3 4.1	C24	8277
S-SN65-N:O O	2-methylthio-6-nitrobenzothiazole	A	222 330	4.3 4.2	C24	8278
	6-nitro-2-phenylthiobenzothiazole	A	223 328	4.5 4.2	C24	8279
SN65-6	2-phenylbenzothiazole	A	226 297	4.3 4.3	C24	8280
SN65-6-N	2-(m-aminophenyl)benzothiazole	A	230 296	4.4 4.2	C24	8281
	2-(p-aminophenyl)benzothiazole	A	222 356	4.3 4.6	C24	8282
	2-(p-dimethylaminophenyl)benzothiazole	A	223 356	4.3 4.6	C24	8283
SN65-6-O	2-(o-hydroxyphenyl)benzothiazole	A	288 333	4.1 4.2	C24	8284
	2-(p-hydroxyphenyl)benzothiazole	A	251 258 320	3.7 3.7 4.4	C24	8285
SN65-C:C-6-N	2-(p-dimethylaminostyryl)benzothiazole	M	400	4.4	B139	8286
C-SN65:C-C:N-C ₂	N-[2-(3-ethyl-2-benzothiazolylidene)-ethylidene]piperidinium iodide; 3-ethyl-2-(2-piperidinovinyl)benzothiazolium iodide	M	388	4.7	B141	8287
SN65-6-N:O O	2-(o-nitrophenyl)benzothiazole	A	246 255 308		C27	8288
	2-(m-nitrophenyl)benzothiazole	A	224 296-300	4.4 4.2	C24	8289
	2-(p-nitrophenyl)benzothiazole	A	222 333	4.4 4.3	C24	8290
6-SN65-N:O O	6-nitro-2-phenylbenzothiazole	A	225 326	4.4 4.4	C24	8291

system	compound	solv.	λ_{\max} .	loge	ref.	no.
C-SN65:C-C:C-C:N-C ₂	N-[4-(3-ethyl-2-benzothiazolylidene)-2-butenylidene]-N,N-dimethylammonium iodide; 3-ethyl-2-[4-(dimethylamino)-1,3-butadienyl]benzothiazolium iodide	M	482	5.1	B141	8292
	N-[4-(3-ethyl-2-benzothiazolylidene)-2-butenylidene]piperidinium iodide; 3-ethyl-2-(4-piperidino-1,3-butadienyl)benzothiazolium iodide	M	483	5.2	B141	8293
C-SN65:C-[C:C] ₂ -C:N-C ₂	N-[6-(3-ethyl-2-benzothiazolylidene)-2,4-hexadienylidene]piperidinium iodide; 3-ethyl-2-(6-piperidino-1,3,5-hexatrienyl)benzothiazolium iodide	M	584	5.3	B141	8294
C-SN65:C-C:N-6	3-ethyl-2-[2-(phenylimino)ethylidene]-benzothiazoline	M	394	4.6	B141	8295
	3-ethyl-2-(2-anilinovinyl)benzothiazolium iodide; 3-ethyl-2-[2-(phenylimino)-ethylidene]benzothiazoline hydroiodide	M	414	5.7	B141	8296
C-SN65:C-C:N-6 C	3-ethyl-2-[2-(N-methylanilino)vinyl]-benzothiazolium iodide; 3-ethyl-2-[2-(N-methylphenylimino)ethylidene]benzothiazoline hydroiodide	M	400	5.7	B141	8297
C-SN65:C-C:C-C:N-6	3-ethyl-2-[4-(phenylimino)-2-butenylidene]benzothiazoline	M	448	4.8	B141	8298
	3-ethyl-2-(4-anilino-1,3-butadienyl)-benzothiazolium iodide; 3-ethyl-2-[4-(phenylimino)-2-butenylidene]benzothiazoline hydroiodide	M	516	5.0	B141	8299
C-SN65:C-C:C-C:N-6 C	3-ethyl-2-[4-(N-methylanilino)-1,3-butadienyl]benzothiazolium iodide; 3-ethyl-2-[4-(N-methylphenylimino)-2-butenylidene]benzothiazoline perchlorate	M	496.5	5.0	B141	8300
C-SN65:C-[C:C] ₂ -C:N-6	3-ethyl-2-(6-(phenylimino)-2,4-hexadienylidene)benzothiazoline	M	485	4.8	B141	8301
	3-ethyl-2-(6-anilino-1,3,5-hexatrienyl)-benzothiazolium iodide; 3-ethyl-2-[6-(phenylimino)-2,4-hexadienylidene]benzothiazoline hydroiodide	M	612.5	4.9	B141	8302
C-SN65:C-[C:C] ₂ -C:N-6 C	3-ethyl-2-[6-(N-methylanilino)-1,3,5-hexatrienyl]benzothiazolium iodide; 3-ethyl 2-[6-(N-methylphenylimino)-2,4-hexadienylidene]benzothiazoline hydroiodide	M	597.5	5.1	B141	8303

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-SN65:C-C: $\overset{6}{\underset{\text{C}}{\text{N}}\text{C}=\text{O}}$	3-ethyl-2-(2-acetanilidovinyl)benzothiazolium iodide; 3-ethyl-2-[2-(N-phenylacetimido)ethylidene]benzothiazoline hydroiodide	M	364	4.0	B141	8304
C-SN65:C-C:C-C: $\overset{6}{\underset{\text{C}}{\text{N}}\text{C}=\text{O}}$	3-ethyl-2-(4-acetanilido-1,3-butadienyl)-benzothiazolium iodide; 3-ethyl-2-[4-(N-phenylacetimido)-2-butenylidene]-benzothiazoline hydroiodide	M	426	4.5	B141	8305
SN65:C-[C:C] $_2$ -C: $\overset{6}{\underset{\text{C}}{\text{N}}\text{C}=\text{O}}$	3-ethyl-2-(6-acetanilido-1,3,5-hexatrienyl)benzothiazolium iodide; 3-ethyl-2-[6-(N-phenylacetimido)-2,4-hexadienylidene]benzothiazoline hydroiodide	M	461	4.6	B141	8306
C-SN65:C-C:6:N-C $_2$	2-[2-(p-dimethylaminophenyl)vinyl]-3-methylthiazolium iodide	M	524	4.8	B139	8307
		*1	528	4.8	B139	8308
C-SN65:C-N66-C	1',2-diethylthia-2'-cyanine iodide	M	486	4.6	K28	8309
	1',2-diethylthia-4'-cyanine iodide	M	504	4.9	K28	8310
C-SN65:C-C:C-N66-C	1',3-diethylthia-2'-carbocyanine iodide	M	578	5.1	B139	8311
C $_3$ -SN65:C-C:C-ON65-6	3,3'-diethyl-5',6'-dimethyl-5-phenyl-oxathiacarbocyanine perchlorate	M	530		B28	8312
C $_3$ -SN65:C-C:C-ON65-6	3,3'-diethyl-5',6',9-trimethyl-5-phenyl-oxathiacarbocyanine perchlorate	M	526		B28	8313
C-SN65:C-C: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}:\overset{\text{SN5}}{\underset{\text{C}}{\text{S65}}}\text{O}$	3-ethyl-5-(3-ethylbenzothiazolin-2-ylideneethylidene)-2-(2,3-dihydro-2-oxothionaphthen-3-ylidene)thiazolid-4-one	*2	577		G15	8314
	4-(3-ethylbenzothiazolin-2-ylideneethylidene)-2-(2,3-dihydro-2-oxothionaphthen-3-ylidene)-3-methylthiazolid-5-one	*2	600		G15	8315
C-SN65:C-C: $\overset{\text{O}}{\underset{\text{C}}{\text{C}}}:\overset{\text{SN5}}{\underset{\text{C}}{\text{S65}}}\text{O}$	3-ethyl-5-(3-ethylbenzothiazolin-2-ylideneethylidene)-2-(2,3-dihydro-6-ethoxy-2-oxothionaphthen-3-ylidene)-thiazolid-4-one	*2	576		G15	8316
	4-(3-ethylbenzothiazolin-2-ylideneethylidene)-2-(2,3-dihydro-6-ethoxy-2-oxothionaphthen-3-ylidene)-3-methylthiazolid-5-one	*2	610		G15	8317
C-SN65:C-SN65	3-ethyl-2-(2-thiazolylmethylene)-thiazoline	M	396	4.8	B140	8318

*1 nitromethane *2 HO-CH $_2$ -CH $_2$ -O-C $_2$ H $_5$

system	compound	solv.	λ_{\max}	log ϵ	ref.	no.
C-SN65:C-SN65-C	3,3'-diethyldithiacyanine iodide	M	423	4.9	B140	8319
C-SN65:C-C:C-SN65	3-ethyl-2-[3-(2-thiazolyl)allylidene]-thiazoline	M	458	4.8	B140	8320
C-SN65:C-C:C-SN65-C	3,3'-diethyldithiacarbocyanine iodide	M	557.5	5.2	B140	8321
C-SN65:C-C:C-SN65-C	3,3'-diethyl-9-methyldithiacarbocyanine iodide	M	543		B28	8322
	3,3',9-triethyldithiacarbocyanine iodide	M	547.5		B28	8323
C ₂ -SN65:C-C:C-SN65-C ₂	3,3'-diethyl-6,6'-dimethyldithiacarbocyanine iodide	M	562		B28	8324
C ₂ -SN65:C-C:C-SN65-C ₂	3,3'-diethyl-6,6',9-trimethyldithiacarbocyanine iodide	M	547.5		B28	8325
	3,3',9-triethyl-6,6'-dimethyldithiacarbocyanine iodide	M	552.5		B28	8326
C ₃ -SN65:C-C:C-SN65-C ₃	3,3'-diethyl-5,5',6,6'-tetramethyldithiacarbocyanine iodide	M	570		B28	8327
C ₃ -SN65:C-C:C-SN65-C ₃	3,3'-diethyl-5,5',6,6',9-pentamethyldithiacarbocyanine iodide	M	553		B28	8328
	3,3',9-triethyl-5,5',6,6'-tetramethyldithiacarbocyanine iodide	M	558		B28	8329
C-SN65:C-[C:C] ₂ -SN65	3-ethyl-2-[5-(2-thiazolyl)-2,4-pentadienylidene]thiazoline	M	490	4.8	B140	8330
C-SN65:C-[C:C] ₂ -SN65-C	3,3'-diethyldithiadibenzocarbocyanine iodide	M	650	5.4	B140	8331
C-SN65:C-[C:C] ₃ -SN65-C	3,3'-diethyldithiatricarbocyanine iodide	M	758	5.4	B140	8332
C-SN65:N	2-imino-3-methylbenzothiazoline		265 300	3.9 3.7	E4	8333
OC-SN65:N	6-ethoxy-2-imino-3-methylbenzothiazoline		228 267	4.2 4.1	B47	8334
			270 327	3.9 3.8	E4	8335
BrC-SN65:N	6-bromo-2-imino-3-methylbenzothiazoline		270 309	4.0 3.7	E4	8336
C ₂ -SN65:N-C:O	2-acetimido-3,6-dimethylbenzothiazoline	A	316.5		H90	8337
C-SN65:N-6	3-ethyl-2-(phenylimino)benzothiazoline	M	302	4.0	B141	8338

system	compound	solv.	λ_{\max} .	$\log \epsilon$	ref.	no.
C-SN65:O	6-methylbenzothiazolin-2-one; 6-methyl-2-benzothiazolone		245 292.5	4.0 3.6	H91	8339
SN65:S	benzothiazoline-2-thione	A	236 325	4.2 4.4	K46	8340
		*1	235 310	4.4 4.3	K46	8341
		*2	325	4.2	K46	8342
C-SN65:S	6-methylbenzothiazoline-2-thione	M	323	4.4	H15	8343
		*3	302	4.4	H15	8344
		*4	312	4.4	H15	8345
	3-methylbenzothiazoline-2-thione		231 241 324.5	4.1 4.1 4.4	M55	8346
C ₂ -SN65:S	3,6-dimethylbenzothiazoline-2-thione	A	325	4.6	H15	8347
C-SN665	1-methyl-9-thia-2-azafluorene	A	236 281 337	4.6 4.1 3.8	H53	8348
C ₃ -SN665	8-methylacenaphtheno[5,4-d]thiazole		240 305	4.6 3.9	S2n	8349
NC ₂ -SN665	8-aminoacenaphtheno[5,4-d]thiazole		248 314	4.8 4.0	S2n	8350
BrN-SN665	2-amino-4-bromonaphtho[2,3-d]thiazole		265	4.7	E4	8351
	2-(methylamino)-5-bromonaphtho[1,2-d]-thiazole		258 340	4.6 4.0	E4	8352
SN665-6	1-phenyl-9-thi-2-azafluorene	A	241 289 346	4.6 4.2 3.8	H53	8353
C-SN665:C-N66-C	1',3-diethyl-4,5-benzothia-2'-cyanine iodide		502	4.7	K28	8354
	1',3-diethyl-6,7-benzothia-2'-cyanine iodide		500	4.7	K28	8355
	1',3-diethyl-4,5-benzothia-4'-cyanine iodide		523	4.9	K28	8356
	1',3-diethyl-6,7-benzothia-4'-cyanine iodide		521	4.9	K28	8357

*1 2N NaOH/W *2 Zn-salt/C *3 NaOH/W *4 NaOC₂H₅/W

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
C-SN665:C-C:C-SN65-C ₂	3,3'-diethyl-6-methyl-4',5'-benzothia- carbocyanine iodide	M	580		B28	8358
C-SN665:C-C:C-SN65-C ₂	3,3'-diethyl-6,9-dimethyl-4',5'-benzo- thiacarbocyanine iodide	M	551		B28	8359
	3,3',9-triethyl-6-methyl-4',5'-benzo- thiacarbocyanine iodide	M	563.5		B28	8360
C-SN665:C-C:C-SN665-C	3,3'-diethyl-4,5:4',5'-dibenzothiacarbo- cyanine iodide		596	5.1	K28	8361
	3,3'-diethyl-6,7:6',7'-dibenzothiacarbo- cyanine iodide		593	5.1	K28	8362
C-SN665:C-C:C-SN665-C	3,3'-diethyl-9-methyl-4,5:4',5'-dibenzo- thiacarbocyanine iodide	M	575		B28	8363
	3,3'-diethyl-9-methyl-6,7:6',7'-dibenzo- thiacarbocyanine iodide	M	570		B28	8364
	3,3',9-triethyl-4,5:4',5'-dibenzothia- carbocyanine iodide	M	578.5		B28	8365
	3,3',9-triethyl-6,7:6',7'-dibenzothia- carbocyanine iodide	M	574		B28	8366
SN6 ₃ :N	3-aminophenothiazinium chloride	4.6	555	4.1	G24	8367
N-SN6 ₃ :N	3,7-diaminophenothiazinium chloride; Lauth's Violet	0.0	600 670		M33	8368
	3,7-bis(dimethylamino)phenothiazinium chloride; Methylene Blue	W	609 668		F38u	8369
		W	658	4.9	M34	8370
		0.0	665 747.5		M33	8371
NC-SN6 ₃ :N	3-amino-7-(dimethylamino)-2-methylpheno- thiazinium chloride; Toluidine Blue	W	630	4.7	M34	8372
NC ₂ -SN6 ₃ :N	3,7-bis(dimethylamino)-2,8-dimethyl- phenothiazinium salt; New Methylene Blue	W	650 747.5		M33	8373
SN6 ₃ :O	3H-phenothiazin-3-one	M	236 273 357 505	4.4 4.0 4.0 3.9	H80	8374
		4.5	525	3.9	G24	8375

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
		7.4	385 534	4.0 4.0	A17n	8376
N-SN ₆ :O	7-amino-3H-phenothiazin-3-one	*1	545	4.3	G24	8377
C-SN ₆ :5:C-N66-C	1',3-diethyl-4,5:6,7-dibenzothia-2'-cyanine iodide		510	4.7	K28	8378
	1',3-diethyl-4,5:6,7-dibenzothia-4'-cyanine iodide		529	5.0	K28	8379
C-SN ₆ :5:C-C:C-SN ₆ :5-C	3,3'-diethyl-4,5:4',5':6,7:6',7'-tetra-benzothiacarbocyanine iodide		614	4.1	K28	8380
N-SN ₂ :5	5-amino-1,2,4-thiadiazole	W	247	3.9	G18	8381
	5-(methylamino)-1,2,4-thiadiazole	W	253	3.9	G18	8382
NC-SN ₂ :5	5-amino-3-methyl-1,2,4-thiadiazole	M	244	3.9	G18	8383
		W	245	3.9	G17	8384
	2-amino-5-methyl-1,3,4-thiadiazole	W	252.5	3.8	M16n	8385
N-SN ₂ :5-6	5-amino-3-phenyl-1,2,4-thiadiazole	M	232 274	4.4 3.8	G18	8386
	5-(methylamino)-3-phenyl-1,2,4-thiadiazole	M	238 278	4.5 3.8	G18	8387
	5-(dimethylamino)-3-phenyl-1,2,4-thiadiazole	M	241 280	4.5 3.7	G18	8388
C-SN ₂ :5:N	5-imino-4-methyl-1,2,4-thiadiazol-2-ine	W	241	3.7	G18	8389
C-SN ₂ :5:N-C	4-methyl-5-(methylimino)-1,2,4-thiadiazol-2-ine	W	238	3.7	G18	8390
C-SN ₂ :5:N -6	5-imino-2-methyl-3-phenyl-1,2,4-thiadiazol-3-ine	M	229	4.3	G18	8391
	5-imino-4-methyl-3-phenyl-1,2,4-thiadiazol-2-ine	M	226	4.2	G18	8392
C-SN ₂ :5:N -6 C	4-methyl-5-(methylimino)-3-phenyl-1,2,4-thiadiazol-2-ine	M	227	4.2	G18	8393
O:SN ₂ 655:C-6	2-benzylidene-2,3-dihydro-1,3a,8-thiadiazacyclopenta[a]inden-3-one	M	300 357	4.2 4.2	V1x	8394
O:SN ₂ 655:C-6-O	2-(o-methoxybenzylidene)-2,3-dihydro-1,3a,8-thiadiazacyclopenta[a]inden-3-one	M	290 369	4.1 4.3	V1x	8395

*1 1.0N HCl/W

(SN₂665)(S₂N₂6655)

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
SN ₂ 665	quino[6,5-d]thiazole	A	251 331	4.4 3.3	B82	8396
	naphtho[2,1-d]-1,2,3-thiadiazole		255 338	4.8 3.4	A23	8397
OC-SN ₂ 665	9-hydroxy-7-methylquino[6,5-d]thiazole	A	251 320	4.4 3.9	B82	8398
C-SN ₂ 6655	2-methyl-1H-imidazo[4,5-a]dibenzo- thiophene	A	247	4.7	C79	8399
	2-methyl-1H-imidazo[4,5-b]dibenzo- thiophene	A	242 316	4.5 4.3	S11	8400
	2-methyl-1H-imidazo[4,5-c]dibenzo- thiophene	A	237 297 337	4.5 4.2 4.0	S11	8401
S ₂ N ₂ 6655	3H-1,2,5-thiadiazolo[c]dibenzothiophene	A	240	4.5	S10	8402
			271	4.2		
			291	4.2		
			372	4.2		

PART 50. OTHER HETEROAROMATIC CHROMOPHORES

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
S06	1,4-oxathiin		229	3.6	P0u	8403
O:SO₆55:O C ₂	4,7-dimethylbenzo[b]thiophene-5,6-dicarboxylic anhydride	M	240 316	4.5 3.5	D5	8404
6-Se5-6	2,4-diphenylselenole	A	262		D15	8405
C-6-Se5-6-C	2,4-di(p-tolyl)selenole	A	267.5		D15	8406
O-6-Se5-6-O	2,4-bis(p-methoxyphenyl)selenole	A	272.5		D15	8407
6₆>Se5-C:O	2-formyl-3,5-diphenylselenole	A	262.5 345		D15	8408
Se665	dibenzoselenole	A	238 287 329	4.7 4.0 3.5	S12	8409
N-Se665	2-aminodibenzoselenole	A	245 289	4.7 4.2	S14	8410
	3-aminodibenzoselenole	A	243 299	4.6 3.9	S14	8411
	2-acetamidodibenzoselenole	A	244 281 303	4.7 4.3 4.3	S14	8412
	3-acetamidodibenzoselenole	A	243 330	4.6 3.4	S14	8413
	3-(trifluoroacetamido)dibenzoselenole	A	245 282 301	4.6 4.3 4.3	S14	8414
O-Se665	dibenzoselenole 9-oxide	A	234 325	4.5 3.3	S14	8415
N-Se665-N:O O	2-amino-1-nitrodibenzoselenole	A	240 292 380 451	4.4 4.4 3.7 3.6	S12	8416
		*1	230 270 310 419	4.6 4.3 3.9 3.6	S12	8417

*1 50% H₂SO₄/A

(Se665)(O:N)
O

(SeN65:O)

system	compound	solv.	λ_{\max} .	log ϵ	ref.	no.
	2-acetamido-1-nitrodibenzoselenole	A	236 282 399	4.5 4.4 3.7	S12	8418
O-Se665-N:O O	2-nitrodibenzoselenole 9-oxide	A	220 278 330	4.5 4.0 4.1	S12	8419
C ₂ -SeN5:C-N66-C	1',3-diethyl-4-methylselenazolo-2'-cyanine iodide		485		B138	8420
OC-SeN5:C-C:C-SN65-C	3,3'-diethyl-5-methoxyselena-4',5'-benzothiacarbocyanine iodide	M	592		B28	8421
OC-SeN5:C-C:C-SN65-C C	3,3'-diethyl-5-methoxy-9-methylselenazolo-4',5'-benzothiacarbocyanine iodide	M	567.5		B28	8422
	3,3',9-triethyl-5-methoxyselena-4',5'-benzothiacarbocyanine iodide	M	572		B28	8423
C-SeN65	2-methylbenzoselenazole		223 295	4.3 3.3	B47	8424
C-SeN65:C-N66-C	1',3-diethylselenazolo-2'-cyanine iodide	M	488		B136	8425
O-SeN65:C-C:C-ON65-6 C	3,3'-diethyl-5'-methoxy-5-phenyl-oxaselenacarbocyanine iodide	M	540.5		B28	8426
O-SeN65:C-C:C-ON65-6 C C	3,3'-diethyl-5'-methoxy-9-methyl-5-phenyloxaselenacarbocyanine iodide	M	534		B28	8427
C-SeN65:C-C:C-SeN65-C	3,3'-diethylselenacarbocyanine iodide	M	567.5		B28	8428
C-SeN65:C-C:C-SeN65-C C	3,3'-diethyl-9-methylselenacarbocyanine iodide	M	552.5		B28	8429
	3,3',9-triethylselenacarbocyanine iodide	M	557.5		B28	8430
OC-SeN65:C-C:C-SeN65-OC	3,3'-diethyl-5,5'-dimethoxyselenacarbocyanine iodide	M	589		B28	8431
OC-SeN65:C-C:C-SeN65-OC C	3,3'-diethyl-5,5'-dimethoxy-9-methylselenacarbocyanine iodide	M	567		B28	8432
SeN65:O	2-benzoselenazolinone; 2-benzoselenazolinone	M	247 285	3.8 3.6	D16	8433
		*1	235	4.5	D16	8434
C-SeN65:O	3-methyl-2-benzoselenazolinone; 3-methyl-2-benzoselenazolinone	M	247	3.9	D16	8435

*1 NaOH/W

system	compound	solv.	$\lambda_{\text{max.}}$	log ϵ	ref.	no.
SeN65:S	2-benzoselenazolinethione; 2-mercapto-benzoselenazole	M	242 326	4.5 4.5	D16	8436
		*1	238 310	4.5 4.3	D16	8437
C-SeN65:S	3-methyl-2-benzoselenazolethione; 2-mercapto-3-methylbenzoselenazole	M	243 329	4.3 4.5	D16	8438
SeN₂65	benzo-1,2,5-selenadiazole; piaselehole	A	233 330	3.7 4.2	S15	8439
SeN₂65-6	5-phenylbenzo-1,2,5-selenadiazole; 5-phenylpiaselehole	A	255 346	4.3 4.2	S15	8440
SeN₂65-6-6	5-xenylbenzo-1,2,5-selenadiazole; 5-xenylpiaselehole	A	274 348	4.5 4.2	S15	8441
SeSN₂6655	1H-1,2,5-selenadiazolo[a]dibenzothio- phene	A	242 373	4.5 4.2	S12	8442
	1,2,5-selenadiazolo[c]dibenzothiophene	A	267 309 374	4.2 3.6 4.3	S11	8443

*1 NaOH/W

TABLE II
ABSORBING CHROMOPHORE FROM ABSORPTION MAXIMUM

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.} : <199.5\mu$			(6) (N:C)	4.6	2626	(6) (O:C)	4.1	3172
none	3.4	4	(6) (O:C)	4.6	3142	O	4.1	3173
			N				4.1	3174
			(6) (O:C)	3.9	3165		4.4	3202
(C:C)	3.1	8	O	4.2	3178		4.2	3217
				4.6	3203		4.3	3279
				4.4	3207		4.4	3287
(C:C)	3.9	56		4.2	3211		4.5	3288
				4.3	3276		4.2	3296
				4.6	3280		4.2	3298
(C:C)	3.8	230		4.2	3282		4.5	3301
				4.5	3285	(N ₂ 5) (6) (O:N)	4.1	6090
				4.1	3481	O		
(C:C:C)	3.6	231	(6) (O:N)	4.2	3484			
			O	4.2	3514			
				3.8	5197	$\lambda_{\max.} : 206-207.5\mu$		
(N:C)	3.7	373	(N5)	3.9	5198	(C:C)	3.6	65
				4.4	6632		3.5	66
			(N ₂ 65)	4.4	6950		4.4	83
(N:C)	1.8	1002	(N ₃ 65)	4.0	7400	(C:C) ₃	4.1	174
O			(O5)	3.5	7468		4.1	175
(O:C) ₂	3.6	1011	(O5) (O:C)			(C:C) ₃	5.1	237
O			O			(O:C)	3.0	617
(O:C) ₂ (C:C)	3.9	1107	(O65) (O:C)	4.3	7630	(O:C)		976
O			O			N		
(6)	3.9	1323	$\lambda_{\max.} : 204-205.5\mu$			(O:C)	1.7	999
	4.4	1355	none	3	3	O		
	4.4	1372				(6)	3.9	1326
	4.6	1510					4.4	1394
(6) (O:C)	4.3	2682		2.3	35		4.6	1448
			(C:C)	3.1	59		3.9	1477
				3.6	67			1576
(6) (O:C) ₂	4.5	2693		4.2	71		3.9	1578
			(N:C) ₂	4.1	375		4.5	1682
			(O:C)	1.7	1000		4.6	1866
O	4.6	3312	O	1.6	1001	(6) ₂	4.0	2048
(N66)	4.5	5678		1.7	1003	(6) (C:C)	4.4	3208
	4.3	5679		1.6	1004	(6) (O:C)	4.1	3212
				1.8	1005	O	4.2	3215
$\lambda_{\max.} : 200-203.5\mu$				2.0	1008		4.4	3216
(C:C)	2.8	58	(O:C) (C:C)	4.0	1014		4.4	3267
			O	4.1	1015		4.4	3297
			(O:C) ₂ (C:C)	4.1	1109		4.6	3302
	3.4	60	O			(6) (O:N) (O:C)	4.0	3866
	3.6	63	(6)	4.3	1392	O		
	3.5	64		4.1	1412			
	3.7	84		4.1	1641	(N6)	4.3	5337
(C:C) ₂	4.0	94			1686	(N ₂ 5)	3.7	6069
(O:C) (C:C)	4.0	1016		3.8	1708	(N ₃ 6)	4.9	6909
O								
(6)	3.9	1399						

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.}$: 208-209.5 μ			(6) (O:N) O	4.1	3585	(66) (O:C)	4.5	4271
(C:C)	3.7	68	(6) (O:N) (O:C) O	4.1	3639	(66) (6)	4.6	4355
	4.0	69		4.2	3869		4.5	4356
	4.1	82	(N5)	4.1	3872	(N66)	4.3	5673
(N:C) ₂	4.3	377	(N5) (O:C) ₂ O	4.2	5194		4.1	5679
(O:C) (C:C)	4.1	634		4.1	5211	(N ₂ 6)	4.3	6250
(O:C) ₂ (C:C) O	4.1	1106	(N65)		5569	(O5) (O:N) (O:C) O O	4.0	7509
	4.2	1108			5570			
(S:C:O)	1.7	1317	(N66)	4.5	5746	$\lambda_{\max.}$: 213-213.5 μ		
(6)	4.5	1684	(N ₂ 6)	3.6	6278	(C:C) (C:C)	4.0	242
(6) (O:C)	4.3	2723		3.6	6279	(O:C) (C:C) ₂	3.9	809
	4.2	2737	(O:N ₂ 6:O)	3.8	6588	(O:C) O	1.9	1007
	4.2	2754	(ON5) (6) ₂	4.4	7794	(O:N) O	4.0	1284
	4.3	2783				(6)		1572
(6) (O:C) O	4.4	3186	$\lambda_{\max.}$: 211-211.5 μ					1637
	4.4	3189	(O:N) O	3.9	306		3.8	1664
	4.2	3218	(O:C) (C:C) O		1017		4.0	1688
(6) (O:C) ₂ O	4.6	3309	(6)	2.6	1366			1692
(6) (O:N) O	4.2	3575		4.0	1389	(6) (C:C)	4.3	2010
	4.1	3578		3.9	1510	(6) ₂ (N:C) ₂	4.2	2527
	4.1	3627	(6) (C:C)	4.0	2049	(6) (O:C) N		3138
	4.2	3629	(6) (N:C)	4.5	2627	(6) (O:N) O	3.8	3571
(6) (O:N) (O:C) O O	4.0	3867	(6) (O:C)	4.2	2781		4.2	3588
(76 ₃)	4.6	5058	(6) (O:N) O	4.2	3632		4.3	3634
(N5) (6)	4.2	5225	(7665)	4.6	5056	(6) (O:N) (O:C) O	4.1	3870
	4.2	5227	(N ₂ 6)	3.9	6299	(O:6 ₃ :O)	4.2	4817
(N6)	4.3	5332		3.7	6300	(N5) (O:C) ₂ O	3.9	5212
(N6:O)	3.9	5524		4.3	6342	(N6)	3.7	5352
(N ₂ 6)	3.3	6149					3.7	5355
	4.2	6181					3.8	5356
(N ₂ 6:S)	3.9	6535				(N66)	4.6	5674
(N ₃ 5)	3.6	6857				(N ₂ 6)	4.1	5708
$\lambda_{\max.}$: 210-210.5 μ			$\lambda_{\max.}$: 212-212.5 μ				3.7	6263
none	3.0	9	(O:C) (C:C) O	4.1	1028		3.7	6265
(C:C)	2.4	76	(O:C) (C:C:C) O	4.0	1031		3.8	6281
(O:C) O	1.7	1006	(6)		1157		3.8	6282
(O:C) (C:C) O	3.8	1039		3.9	1358		3.8	6309
(O:C) (C:C) O	3.8	1151	(6) (N:C)	4.3	1754	(N ₂ 6:O)	4.1	6406
(6)	3.9	1357	(6) (O:C)	4.1	2625	(O5) (O:N) (O:C) O O	4.1	7510
	4.6	1450		4.2	2743			
	3.8	1544		4.0	2744			
	3.9	1718		4.3	2780			
	3.9	1802		4.2	2784			
(6) (O:C)	4.2	2753	(6) (O:C) O		3199			
			(6) (O:N) O	4.0	3286			
			(66) ₂		3625	(S:SN5:O) C	4.6	8238
				4.7	4222			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.}: 214-214.5\mu$			(N5) (O:C) ₂ O	3.9	5215	(SN65)	4.8	8249
(C:C)	4.0	81	(N65)	4.3	5557	$\lambda_{\max.}: 217-217.5\mu$		
(N:C)	3.7	317	(N26)	3.8	6277			
(O:C) (C:C)	3.9	636	(N26:O)	4.0	6397	(C:C) ₂	4.3	86
(O:C) (C:C)	3.7	947	(N26:S)	4.0	6542	(N:C)	3.9	336
(O:C) (C:C)	4.0	1019	(O5)		7404	(N:C) ₂	4.3	376
O	3.8	1021	(O5) (O:C) O	4.5	7466	(O:C) O	1.7	1010
(O:C) (C:C) ₂ O	3.9	1076	$\lambda_{\max.}: 216-216.5\mu$			(O:C) (C:C) O	4.1	1023
(6)	4.2	1348				(6)		1574
	3.8	1534	(O:C) (C:C) O	4.0	1022			1574
(6) (O:C) N	4.5	3143		4.0	1027		3.8	1649
(6) (O:C) O		3294	(6)	3.9	1521		4.0	1652
(6) (O:N) ₂ O	4.1	3694	(6) (N:C)	4.5	2623		3.9	1656
(6) (O:N) (O:C) O	4.0	3873	(6) (O:C)	4.4	2710		3.9	1672
(66) ₂ (N:N)	4.9	4244		4.1	2736			1738
	4.6	4246		4.2	2827			1744
(66) (O:C)	4.3	4270	(6) (O:C) (C:C)	4.1	2985		4.1	1772
(66) (6) (N:N) O	4.6	4417	(6) (O:C) O	4.3	3185	(6) (O:C)	4.3	2822
(63)	4.1	4646		4.4	3210	(6) (O:C) O	4.2	3270
(N6)	3.5	5311	(6) (O:C) (C:C)	4.2	3335		3.9	3274
(N26)	3.4	6276	(6) (O:N)	3.7	3573	(6) (O:C) (C:C) O	4.0	3358
(N26:O)	4.1	6484	O	3.9	3630			3358
(N26:S)	3.9	6562		3.9	3644	(6) (O:N)	3.8	3486
(N35) ₂	3.8	6860	(6) (O:N) ₂ (C:C) O		3804	O	3.9	3631
(ON65) (6) (O:N) O	4.2	7922	(6) (O:N) ₃ (O:C) O O		3899	(6) (O:N) (O:C) O O	4.2	3875
$\lambda_{\max.}: 215-215.5\mu$						(6) (O:N) (O:C) O O		3892
(N:C) (C:C)	1.7	571	(66) ₂ (N:N)	4.8	4245	(66) (O:C)	4.4	4273
(O:C)	2.6	596	(66) ₂ (O:N) O	4.8	4248	(63) (O:C) (C:C)	4.4	4703
(O:C) (C:C)	4.0	663		4.7	4249	(N6)	3.7	5331
	3.1	711	(66) (6) (N:N) O	4.5	4416		3.7	5366
(O:C) (C:C) N	4.0	985				(N6:O) (6)	4.1	5550
(O:C) (C:C) O	4.0	1033	(N5)	3.9	5195	(N65) (O:6:O)	4.4	5584
(O:C) (N:C) (C:C) O	4.0	1174	(N6) (O:C) ₂ O		5435		4.4	5589
(6)		1577	(N65)	4.5	5552	(N66)	4.6	5672
		1654		4.4	5571	(N26)	3.9	6310
	4.0	1751	(N65) (O:C) O	4.5	5580		3.8	6311
(6) (N:C)	3.9	1773	(N66)				3.9	6347
(6) (O:C)	4.3	2492	(N66:O)	4.5	5697	(N26) (N:C)	4.4	6366
(6) (O:C) O	4.2	2725	(N25) (6) (O:N) O	4.6	5877	(N26:O)	4.4	6482
	4.2	3273	(N26)	4.0	6087	(N26:S)	4.1	6548
			(O:N26:O) (O:C) O			(N36)	4.7	6914
				4.0	6348	(N45) (6) (O:N) O	3.9	7047
				4.1	6601			
				4.1	6602	(O665)	4.4	7749
				3.7	6858			
				4.7	6917			
				4.5	7629			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
$\lambda_{\max.}: 218-218.5\mu$			(O63:O)	4.6	7770	(SN65) (O:N)	4.2	8276
(C:C) (C:C) ₂	4.0	260	(SN65)	4.3	8250	O		
(O:C) (C:C)	4.2	1057	(SN65) (O:N)	4.3	8277	$\lambda_{\max.}: 220-220.5\mu$		
O			O			(C:C)		85
(O:N)	3.2	1259	$\lambda_{\max.}: 219-219.5\mu$			(C:C) ₂	4.4	87
(6)		1353	none	2.9	10		4.0	92
	4.5	1542	(C:C) (C:C)	4.0	247	(N:C)	2.8	312
	3.8	1620	(N:C)	3.0	319		4.6	324
	3.9	1665	(O:C) (C:C)	3.6	658		3.7	328
	4.3	1695	(O:C) ₂ (C:C)	3.8	913	(N:C) (C:C)	4.4	393
		1794	(O:C) (C:C)	3.9	948	(N:C) ₂	0.3	570
	3.9	1811	(O:C)	3.3	1220	(N:C) ₂ (C:C)	4.1	579
(6) (C:C)	4.3	2010	S			(O:C) (C:C)	4.2	635
(6) (N:C)	4.4	2455	(6)	4.0	1546		3.9	662
(6) (O:C)	4.0	2729			1653		3.7	680
	4.2	2828		3.6	1719	(O:CN ₂)		998
(6) (O:C) (C:C)	4.2	2967			1731	(O:C) (C:C)	4.0	1034
(6) (O:C)	4.4	3184			1783	O	4.0	1038
O	4.1	3188	(6) (O:C)	4.1	2669	(O:C) (C:C) ₃	4.8	1153
	3.9	3190		4.1	2734	O		
		3201		4.3	2825	(O:C) (N:C) (C:C)	3.9	1175
(6) (O:C) (C:C)	4.3	3295	(6) (O:C) (C:C) ₂	3.5	3014	O		
O	4.0	3361	(6) (O:C)	4.0	3192	(O:C) (O:C) (C:C)	4.1	1196
(6) (O:N)	4.4	3568	(6) (O:C) (C:C)	4.3	3341	O		
O						(6)	3.7	1351
(6) (O:N)	4.2	3652	(6) (O:N)	3.9	3669		3.8	1352
O							4.9	1538
(6) (O:N) ₂	4.1	3695	(6) (O:N) ₂	4.3	3682		3.9	1646
O			O				4.0	1659
(66) ₂	5.1	4228	(66)	5.0	4136		4.5	1707
(66) ₂ (N:N)	4.9	4247	(66) ₂	4.8	4221	(6) (C:C)	4.4	2028
O			(66) (O:C) (C:C)	4.4	4289	(6) (O:C)	4.0	2727
(66) (O:C) (C:C)	4.8	4288		4.6	4291		4.3	2821
(75)	4.1	4559	(66) ₂ (O:C) ₂	4.8	4315		4.3	2824
(64)	4.7	4903	O			(6) (O:C) (C:C)	4.1	2964
(N6)	3.9	5303	(66) (6) (N:N)	4.6	4376	(6) (O:C)	4.3	3187
	3.9	5370		4.5	4378	O	4.4	3221
	3.9	5372	(66) (6) (O:C)	4.6	4426	(6) (O:C) (C:C)	4.3	3359
(N6) (C:C)	4.1	5395		4.7	4427	O	4.3	3362
(N65) (O:6:O)	4.4	5585	(75) (O:N)	4.3	4588	(6) ₂ (O:C) (C:C)	4.2	3375
(N ₂ 6)	4.1	6186	O			O		
	4.0	6353	(N65)	4.4	5563	(6) (O:N)	4.3	3633
	3.6	6360	(N6) ₄	4.7	6059	O	4.3	3641
	3.5	6361	(N ₂ 6)	4.2	6305		4.2	3654
(N ₂ 6:O)	3.8	6429		4.2	6306		4.2	3655
	4.0	6436		3.9	6349		4.2	3657
(N ₂ 75)	4.3	6762		4.1	6354		4.3	3658
(N ₄ 5)	3.5	7018	(N ₂ 6 ₃)	4.5	6794		4.2	3659
(O5)		7403	(N ₄ 65)	3.9	7056	(6) (O:N) (C:C)		3796
	4.4	7407	(O635)	4.7	7784	O		
(O5) (6) ₂	4.4	7518	(O64)	4.2	7785	(7:O)	4.4	4040
(O665)	4.5	7747	(S5) (N ₄ 5)	4.2	8058	(66)	5.0	4098

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	5.0	4101	$\lambda_{\max.}: 221-221.5\text{m}\mu$			(C:C) (C:C)	4.0	243
	4.9	4127				(N:N:N)	2.2	308
	4.9	4130	(N:N)	3.8	305	(N:C)	3.8	334
	4.9	4134	O			(N:C) (C:C) ₂	4.2	556
	4.6	4143	(N:C)	3.7	327	(O:C) ₂	2.1	627
(66) (O:C) (C:C)	4.7	4325	(O:C)	2.8	980	(O:C) (C:C) ₃	4.1	832
O			N			(O:C) ₂ (C:C)	4.1	904
(66) (6) (N:N)	4.5	4415	(O:C) (N:C)	3.9	991	(O:C) (N:C) (C:C)	3.9	971
O			N			(O:C)	2.6	979
(6 ₃)	4.0	4648	(O:C) (C:C)	4.4	1026	N	4.0	981
(6 ₄)	4.6	4902	O	4.3	1072	(O:C) (N:C)	3.1	989
	4.7	4905	(6)	4.3	1350	N		
	4.6	4917		4.3	1532	(O:C) (C:C)	4.2	1025
	4.6	4936	(6) (C:C)	4.3	2016	O	4.1	1029
	4.6	4950	(6) ₂ (N:C) ₂	4.1	2542		4.0	1073
	4.5	4956	(6) (O:C)	4.1	2662	(O:C) (C:C) ₃	4.0	1090
	4.6	4997	(6) (O:N)	4.0	3609	O		
(6 ₄) (O:C)	4.5	5031	O			(O:N)	3.2	1260
O			(6) (O:N) ₂	4.4	3708	(6)	4.1	1524
(N5) (O:C)	4.2	5219	O	4.3	3712	(6) (O:C) (C:C)	3.9	3010
O			(6) ₂ (O:N)	4.1	3742	(6) (O:C)	4.5	3144
(N6)	3.6	5333	O			N		
(N65)	4.4	5561	(O:6:O)	4.4	3975	(6) (O:C)	4.1	3220
(N65) (O:C)	4.3	5577	(66)	5.2	4099	O		
	4.3	5578		5.0	4102	(6) (O:C) (C:C)	4.3	3342
	4.2	5579		4.9	4151	O	4.3	3343
(N66)	4.3	5678		4.9	4152	(6) (O:N)	4.0	3528
(N66) ₂	4.9	5806	(66) (O:C)	4.4	4283	O	4.3	3661
(N ₂ 5) (6) (O:N)	4.0	6089	(66) (6) (O:C)	5.0	4431		4.2	3662
O				5.0	4433	(6) (O:N) ₂	4.2	3696
(N ₂ 6)	4.1	6155	(6 ₄)	4.6	4939	O	4.2	3706
(N ₂ 6:O)	4.1	6407		4.6	4996		4.3	3715
	3.8	6417	(6 ₄) (O:C)	4.6	5032	(6) (O:N) (C:C)		3785
	4.5	6483	O			O		
(N ₂ 6:S)	4.0	6551	(N5) (O:C)	4.4	5213	(66)		4140
(N ₂ 66)	4.6	6661	O	4.2	5214		4.7	4168
(N ₃ 6)	4.2	6902	(N6)	3.7	5312	(66) (O:C)	4.1	4272
(N ₄ 5)	4.2	7017	(N66)	4.7	5665	(6) (O:C) (C:C)	4.4	4290
(N ₄ 65)	4.2	7150	(N ₂ 6:S)	3.9	6541	(66) ₂ (O:C) ₂	4.9	4314
(O:N ₄ 65:O)	4.2	7254		4.2	6554	O		
(N ₄ 66)	4.2	7315	(N ₂ 6 ₃)	4.5	6796	(66) (6) (O:C)	4.9	4432
(O:N ₄ 63:O)	4.9	7359	(N ₄ 5) (6)	4.0	7038	(66) (6) (O:C)	4.4	4438
(O6 ₃ :C) (6)	4.8	7766	(N ₄ 65)	4.2	7091	O	4.8	4440
	4.8	7767		4.3	7110	(75)	4.2	4529
(O6 ₃ :O)	4.6	7774	(N ₄ 65:O)	4.1	7198	(75) (O:N)	4.4	4589
(O:ON5:C) (6)	4.0	7796	(O:N ₄ 63:O)	3.9	7358	O		
(O:ON5:C) (6) ₂	4.3	7828	(S665)	4.5	8138	(O:6 ₃ :O)	4.6	4819
	4.3	7841				(635)	4.6	4888
(ON65) (6)	4.4	7919				(6 ₄)	4.5	4913
(O:S65:O)	4.0	8115	$\lambda_{\max.}: 222-222.5\text{m}\mu$				4.5	4928
(S665) (O:N)	4.5	8147					4.5	4929
O			(C:C) ₂		139	(6 ₄) (C:C)	4.5	5012
(Se665) (O:N)	4.5	8419	(C:C)	3.7	231	(65)	4.8	5071
O				3.7	232	(N6)	3.5	5298

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) (O:C) ₂	3.9	3307	(N6 ₃) (6)	4.5	6032	(6) ₂	4.2	1954
$\begin{array}{c} \text{O} \\ \\ (6) (O:C) (C:C) \end{array}$	4.2	3308	(N ₂ 6)	4.2	6153	(6) (C:C)	3.7	1991
$\begin{array}{c} \text{O} \\ \\ (6) (O:C) (O:C) (C:C) \end{array}$	4.3	3340		3.9	6256		3.7	2015
$\begin{array}{c} \text{O} \\ \\ (6) (O:C) (O:C) (C:C) \end{array}$	4.0	3346	(N ₂ 6:O)	4.0	6400	(6) ₂ (C:C)	4.1	2082
$\begin{array}{c} \text{O} \\ \\ (6) (O:C) (O:C) (C:C) \end{array}$	3.8	3437		4.0	6401	(6) ₂ (N:N)	4.2	2156
$\begin{array}{c} \text{O} \\ \\ (6) (O:C) (O:C) \end{array}$		3442	(N ₂ 6:S)	4.0	6496	(6) ₃ (N:N) ₂	4.4	2365
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$			(N ₃ 6)	3.9	6564		4.2	2369
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.3	3553	(N ₄ 5)	4.4	6930	(6) ₄ (N:N) ₃	4.3	2384
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.2	3576	(N ₄ 65:O) (6)	3.5	7026		4.4	2386
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.4	3717	$\begin{array}{c} \text{O} \quad \text{O} \\ \quad \\ \text{O:N}_4 \end{array}$	4.3	7248	(6) ₂ (N:N) (N:N)	4.3	2407
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$			(O5) (N:C)	4.4	7352	(6) (N:C)	3.9	2412
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.3	3725	(O5) ₂ (O:C) ₂	4.2	7414	(6) ₂ (N:C) ₂	4.4	2560
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.0	3725	(O5) (6) ₂	4.0	7441	(6) (N:C)	4.0	2618
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.2	3757	(O66:S) (O:C)	4.3	7521	(6) (O:C)	4.1	2753
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.3	3757		4.3	7746		4.1	2754
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.0	3763					4.2	2755
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$		3777	(O665)	4.6	7759	(6) (O:C) ₂	4.5	2848
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$		3799	(O:ON5:C) (6) ₂	4.3	7816		4.1	2851
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.4	3898	(S5) (O:C) (C:C)	4.1	8022		4.2	2853
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$		3900	(S5) (6)	4.0	8033	(6) ₂ (O:C) (C:C) ₂	4.2	3092
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$			(S65)	4.5	8102	(6) (O:C)	4.0	3165
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$			(SN ₂ 5:N) (6)	4.2	8393	$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$	4.0	3168
(O:6:O)	4.4	3977					3.7	3172
	4.4	3978					4.2	3339
(7:O)	4.3	4044	$\lambda_{\text{max.}} : 228-228.5\mu$			$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$		
(66)	5.1	4104				$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$	4.1	3374
	4.9	4105	(C:C)	4.0	70	$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$	4.1	3378
	5.1	4106	(C:C) (C:C)	4.1	254	$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$		3406
	5.1	4108	(C:C) (C:C) ₄	4.3	272	$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$		
	5.1	4111	(N:C)	3.8	329	(6) (O:N)	3.8	3501
	5.0	4113		4.2	340	$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.2	3549
	4.9	4150		4.3	348		3.9	3578
		4178		4.1	369		3.9	3585
		4189		3.9	370		4.1	3667
	5.0	4192	(N:C) (C:C)	4.2	394	(6) (O:N) ₂		3701
	5.0	4193		4.2	446	$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$	4.0	3702
	4.8	4194	(N:C) (C:C) ₂	4.2	495	(7:O)	4.4	4039
		4201	(N:C) (C:C) ₃	4.3	512		4.3	4043
(66) (O:C)	4.7	4277	(O:C) (C:C)	4.0	641	(66)	5.1	4103
(66) (6) (O:C)	4.6	4430		4.0	659		4.9	4114
(75)	4.3	4535		4.0	763		4.2	4141
	4.4	4542	(O:C) (C:C)	3.8	1075		4.8	4146
	4.4	4546	$\begin{array}{c} \text{O} \\ \\ (O:C) \end{array}$					4159
	4.3	4553	(O:N)	3.9	1276		4.9	4160
(6 ₃) (66) ₂	5.1	4729	$\begin{array}{c} \text{O} \\ \\ (6) \end{array}$	4.3	1285		4.7	4187
(6 ₄)	4.5	4924		3.9	1417	(66) ₂	4.6	4220
(6 ₅)	4.5	5081			1440		5.1	4225
(6 ₆)	4.6	5110		4.5	1679	(66) (C:C)	4.7	4233
(N6)	3.9	5310			1741	(66) (O:C) (C:C)	4.4	4292
	3.9	5315		3.8	1756	(66) (O:C) (C:C) ₂	4.7	4294
(N6:O)	4.0	5504			1792	(66) (6)	4.8	4354
(N65)	4.4	5574		4.2	1803		4.7	4362
(N66:O)	4.3	5868			1839			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(66) (6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$ (C:C)	4.8	4446	(O:C) (C:C)	4.1	643	(N ₂ 6:O)	4.3	6512
(75)	4.2	4537		4.1	666	(N ₂ 66) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}})$	4.7	6697
	4.4	4544	(O:C) (C:C) ₂	4.0	682	(N ₄ 5) (6)	4.0	7036
(6 ₅ 5 ₂)	4.8	5138		4.1	780		3.8	7042
(N6)	3.8	5373	(O:C) (N:C)	4.1	781	(N ₄ 65)	3.9	7132
(N6) (O:C)	3.9	5412	(O:N)	3.8	965		3.9	7132
(N6) (6) (C:C)	4.1	5456	(O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}})$ (C:C)	4.0	1255		4.3	7147
(N6:O)	3.8	5521		4.0	1289		4.3	7147
	3.8	5526	(6)	3.9	1611	(N ₄ 66)	4.4	7306
(N65)	3.9	5556		4.1	1827	($\overset{\text{O}}{\underset{\text{O}}{\text{O}}}$:N ₄ 66: $\overset{\text{O}}{\underset{\text{O}}{\text{O}}}$)	4.3	7349
	4.5	5573		1840		(N65:O) (6) (O: $\overset{\text{N}}{\underset{\text{O}}{\text{C}}})$	4.3	7391
(N65) (6) (O:C)	4.3	5583	(6) ₂ (C:C) ₂	4.4	2098		4.7	7778
(N ₂ 6)	4.2	6164		4.2	2100	(O6 ₃ :O) (6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$	4.3	7807
	4.2	6188	(6) ₂ (N:N)	4.0	2159	(O:ON5:C) (6) ₂	4.3	8110
	3.8	6212	(6) (N:C)	4.0	2411	(S65) (O:C)	4.3	8391
(N ₂ 6:O)	3.9	6410	(6) ₂ (N:C) ₂	4.2	2533	(SN ₂ 5:N) (6)	3.6	8403
	3.8	6420	(6) (N:C) (C:C)	4.4	2597	(S06)		
(N ₂ 66:O)	4.3	6730	(6) (N:C)	4.0	2620			
(N ₂ 6 ₃)	4.6	6789	(6) (O:C)	4.2	2621			
	4.6	6793	(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$	4.2	2745			
(N ₃ 6 ₄)	4.4	7015		3.8	3277			
(N ₄ 5) (6)	4.1	7033	(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$ ₂	4.0	3305	$\lambda_{\text{max.}}$: 230–230.5m μ		
	4.0	7039		4.3	3543	(C:C) ₂	3.8	98
	4.1	7044		4.0	3577		3.9	100
(N ₄ 65)	4.5	7086	(6) (O:N) ₂	4.4	3718	(C:C) ₄	3.8	185
	4.0	7137				(C:C) ₅	3.3	198
	4.1	7140	(6) (O:N) ₂ (C:C) ₂		3808	(C:C) (C:C)	4.5	256
	4.3	7162				(C:C:C:C)	4.0	300
(05)	3.3	7405	(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}})$ (O:C)	4.0	3868	(N:C)	3.4	326
(05) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$ (C:C)	4.1	7480					4.1	368
	4.1	7481	(66)	5.0	4109	(N:C) (C:C)	4.3	471
(05) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}})$ (C:C)		7497		4.7	4117	(N:C:N)	2.3	581
				4.8	4161	(O:C) (C:C)	4.0	661
(05) (6) ₂	4.3	7523		4.8	4206		4.1	665
(05) (6) ₃	4.4	7527	(75)	4.2	4539	(O:C) (C:C) ₃	4.2	849
(05) (6) (O:C) (C:C)	2.9	7548		4.0	4551	(O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$ (C:C)	4.3	1024
(O6 ₃ :O) (6)	4.7	7777	(O:6 ₃ :O)		4771		4.0	1037
(O:ON5:C) (6) ₂	4.2	7813		4.3	4797		3.6	1039
(O:ON5:C) (6) ₂ (O: $\overset{\text{O}}{\underset{\text{O}}{\text{N}}})$	4.3	7849	(N6)	4.0	5269	(O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}})$ (N:C) (C:C)	4.0	1176
	4.3	7851	(N6) (N5)	3.8	5489			
	4.2	7853	(N65)	4.3	5575			
(O:ON5:C) (05) (6)	4.1	7896	(N66)	4.5	5667			
(ON65) (6)	4.3	7913	(N66:O)	4.2	5862			
(SN65:N)	4.2	8334		4.2	5884	(6)	3.9	1396
			(N ₂ 6)	3.9	6211		3.9	1398
$\lambda_{\text{max.}}$: 229–229.5m μ				4.3	6232		4.1	1431
(N:C)	4.1	313		4.1	6329		4.0	1449
	3.8	345	(N ₂ 6:O)	4.1	6330		4.1	1658
	4.0	367		4.0	6409	(6) ₂	4.8	1873
	3.9	371		3.8	6412		4.1	1932
(N:C) (C:C)	4.2	464		3.8	6421	(6) (C:C) ₂	4.5	2056
				4.4	6471	(6) ₂ (C:C)	4.2	2081

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂ (C:C) ₂	4.1	2101		4.4	4604		4.3	7524
(6) ₂ (N:N)	4.2	2172		4.4	4605	(O5)(6) ₃	4.3	7526
		2209	(O:6 ₃ :O)	4.6	4800	(O6:O)	4.2	7591
(6) ₃ (N:N)	4.2	2372	(6655)	4.2	4870	(O66:O)(O:C)	4.3	7680
	4.2	2374	(6 ₄ :O)	4.5	5052			
(6) ₄ (N:N) ₂	4.3	2381	(76 ₃)	4.4	5058	(O665)	4.3	7752
(6) ₅ (N:N) ₄	4.3	2390	(N5)(6)	4.3	5228		4.7	7754
	4.2	2393	(N5)(6) ₂	4.1	5229		4.3	7756
(6) ₂ (N:N)	3.9	2402	(N6)	4.0	5270	(O665)	4.7	7757
				3.9	5273	(O6 ₃ :O)	4.4	7772
(6)(N:C)	4.2	2429	(N6:O)	3.9	5512	(O:ON5:C)(6) ₂	4.6	7842
(6)(O:C)	4.2	2674		3.8	5514	(O:ON5:C)(6) ₂ (C:C)	4.3	7845
	4.3	2830		3.8	5516	(ON65)(6)	4.0	7915
(6)(O:C)(C:C)	4.1	2989	(N66)	4.6	5662	(S5)	3.8	7953
(6) ₂ (O:C)(C:C)	3.9	3069	(N66) ₂	4.8	5807	(S665)(O:N)	4.7	8152
(6)(O:C)	4.1	3169		4.7	5808			
	3.9	3204	(N66:O)	4.4	5880	(SN65)	4.1	8257
	3.8	3215	(N665)	4.6	5942	(SN65)(6)	4.4	8281
	3.8	3216	O:			(Se665)(O:N)	4.6	8417
	3.9	3279	(O:N ₂ 5:C)(6)	4.0	6115			
	3.9	3303	(N ₂ 6)	4.1	6341			
	4.1	3309	(N ₂ 6:O)	4.0	6411	λ _{max.} : 231-231.5mμ		
		3325		3.8	6414			
(6)(O:C)(C:C)	4.0	3345		3.9	6424	(C:C:C) ₂	4.7	298
				4.0	6485	(N:C)	3.8	333
(6) ₂ (O:C)(N:C)(C:C)		3401		4.3	6507		3.9	335
			(N ₂ 66:O)	4.1	6728	(N:C) ₂	4.0	392
(6)(O:N)	4.1	3502		4.4	6729	(N:C)(C:C)	4.1	472
		3522	(N ₃ 5)(6)	4.0	6874	(N:C)(C:C) ₂		480
	4.1	3531	(N ₃ 5)(6) ₂	4.2	6891	(O:C)(C:C)	4.3	656
	3.8	3533	(N ₃ 6)	4.6	6916	(O:C)(N:C)	3.9	992
		3537	(N ₄ 5)	4.0	7023	N	4.0	993
	4.2	3539	(N ₄ 5)(6)	3.7	7043		4.0	994
	4.3	3554	(N ₄ 65)	4.2	7141	(O:N)	3.8	1251
(6)(O:N)(C:C)		3792	O:				4.1	1257
		3800	(O:N ₄ 66:O)	4.4	7351	(6)	3.7	1433
(6)(O:N)(O:C)		3860	(N ₅ 65:O)(6)	4.4	7390		3.9	1486
		3861	(O5)	4.6	7401			1702
	4.2	3871	(O5)(O:C)	3.4	7436	(6) ₃ (N:N) ₂	4.2	2373
(6)(O:N) ₂ (O:C)		3897		3.5	7438	(6)(N:C)	4.0	2626
				3.8	7439	(6)(O:C)	4.2	2786
(7:O) ₂	4.7	4062	(O5)(O:C)		7464		4.3	2832
(7:O)(6)(C:C)	4.1	4082				(6) ₂ (O:C)(C:C)	4.1	3088
(7:O)(6)(O:N)(C:C)	4.2	4092	(O5)(O:N)	3.6	7493	(6)(O:C)	4.1	3166
							3.8	3230
(66)	5.0	4115	(O5)(O:N) ₂	3.9	7496		4.0	3280
	4.9	4116				(6)(O:N)	4.3	3495
	5.1	4120	(O5)(O:N)(N:C)	4.1	7503		3.9	3505
	4.6	4162		4.0	7504		4.0	3516
(66)(O:C)(C:C)	4.6	4323		4.2	7505		4.1	3536
				4.1	7506		4.3	3551
(O:66:O)(66)	4.9	4523	(O5)(6) ₂	4.4	7517		3.9	3639
(75)	4.2	4549		4.3	7520		4.3	3656
(665:C)	4.6	4603		4.3	7522			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) (O:N) (C:C) O		3794		3.9	112	(66) ₂	5.0	4229
(66)	5.3	4118	(C:C) ₃	4.3	140	(66) ₂ (N:C) ₂	4.8	4258
	5.1	4119	(N:C)	4.2	154	(66) (O:C) O	4.8	4302
	4.6	4149		4.2	343	(66) (O:C) ₂ O	4.8	4304
	5.0	4197	(N:C) (C:C) (C:C) ₂	3.6	366	(66) (O:C) (C:C) O	4.5	4313
(66) (6)	4.7	4361	(O:C) (C:C)	4.2	562		4.5	4318
(O:6 ₃ :O)	4.5	4821		4.1	638	(66) (6) (N:N)	4.4	4385
	4.5	4823	(O:C) (C:C) ₂	4.2	677	(66) (6) (O:C) O	4.6	4436
(6 ₆)	5.0	5123	(O:C) ₂ (C:C) ₃	3.3	827			
(N5)	3.3	5199	(O:C) (C:C) ₄ O	3.7	919	(75) (O:C) O	4.4	4576
(N5) (O:C)	4.0	5206	(O:C) (N:C) (C:C) O	4.1	1094			
(N5) (O:C) (O:C) O	4.2	5220	(O:C) S	3.7	1177	(O:6 ₃ :O)	4.5	4820
(N5) (6) ₂	3.9	5230	(O:N)	3.8	1226	(6 ₄)	4.6	4932
(N6) (O:C)	4.2	5411	(6)	3.9	1253	(66)	4.6	5127
(N6:O)	3.6	5545		3.9	1478	(N5) (O:C) O	3.9	5205
	3.7	5546		3.8	1629		4.0	5209
(N66) (6)	4.4	5825		4.1	1660	(N6:O)	3.7	5539
(N66:O) (6)	4.4	5910	(6) ₃	4.4	1957	(N66)	4.3	5703
(N6 ₃)		5961	(6) ₂ (N:N)	4.1	2310	(N66:O)	4.4	5865
(O:N ₂ 5:C) (6)	4.0	6119	(6) ₄ (N:N) ₃	4.1	2387	(N6 ₃ :O)	4.6	6046
(N ₂ 6)	4.0	6222	(6) ₂ (N:C) (C:C)	4.2	2640	(N ₂ 5) (6) (O:N) O	3.8	6088
	4.0	6225	(6) (O:C)	4.3	2758		4.0	6108
	4.0	6236		4.1	2780	(O:N ₂ 5:C) (6)	4.1	6116
(N ₂ 6:O)	3.9	6426		4.1	2781	(N ₂ 6)	3.9	6314
(N ₂ 6:O) (6)	4.3	6517		4.2	2784		4.2	6340
(N ₂ 6:S)	3.7	6537		4.2	2827	(N ₂ 6) (6) (N:N)	4.0	6392
	4.0	6552	(6) (O:C) ₂	4.2	2828	(N ₂ 6:O)	3.9	6415
(N ₂ 665)	4.5	6779	(6) ₂ (O:C) ₂		2841		3.9	6423
	4.5	6783	(6) (O:C) (C:C)	4.4	2929	(O:N ₂ 6:O) (O:C) O	4.3	6476
(N ₂ 6 ₃)	4.7	6792	(6) (O:C) O	4.0	3002		4.0	6603
(N ₂ 6 ₃ :O)	4.5	6829		4.2	3170			
(N ₄ 65)	4.0	7139		4.0	3173	(N ₃ 5) (6) ₂	4.2	6889
(N ₄ 65) (6)	4.1	7172		4.2	3183	(N ₄ 5)	3.5	7027
(O:N ₄ 65:O)	3.9	7292	(6) ₂ (O:C) (C:C) O	3.9	3285		3.5	7030
	4.3	7525	(6) (O:C) (O:C) (C:C) O	4.2	3385	(N ₄ 65)	4.4	7088
(O66:O) (6)	4.9	7729			3440		4.2	7143
(O:ON5:C) (6) ₂	4.2	7823	(6) (O:N) O	4.3	3504	(O:N ₄ 65:O)	4.0	7148
(ON65)	3.9	7899		4.0	3515	(O:N ₄ 66:O)	3.9	7285
	4.0	7900		4.1	3519		4.3	7350
(S5)	3.8	7955		4.1	3521	(P665:O)	4.5	7398
(S65)	4.5	8106		4.3	3563	(As665:O)	4.5	7399
(S665) (O:N) O	4.4	8150		3.9	3564	(O5)	3.9	7409
(SN65:S)	4.1	8346	(6) (O:N) (O:C) O	4.0	3874	(O5) (6) ₂	4.2	7515
							4.2	7516
			(7:O) (6)	4.4	4070	(O:ON5:C) (6) ₂ (C:C)	4.2	7844
			(66)	5.0	4122	(ON65) (6) (O:N) O	4.1	7926
λ _{max.} : 232-232.5mμ				4.9	4163			
				4.9	4164	(ON65) (6) (O:N) ₂ O	4.2	7928
(C:C) ₂	4.3	99		5.0	4196	(ON ₂ 65)	4.0	7945

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(S5)	3.9	7956		4.3	4076	$\lambda_{\max.}: 234-234.5\text{m}\mu$		
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} \text{SN5:C} (6)$		8232	$(7:\text{O}) (6) (\text{O}:\overset{\text{O}}{\underset{\text{O}}{\text{C}}} (\text{C}:\text{C})$	4.2	4087			
(SN25) (6)	4.4	8386	(66)	4.8	4121	(C:C)	2.8	62
				4.5	4144	$(\text{C}:\text{C})_2$		233
$\lambda_{\max.}: 233-233.5\text{m}\mu$				4.8	4185	$(\text{C}:\text{C})_4$	5.4	238
(C:C) ₂	4.4	103	(66) (O:C) (C:C) ₂	3.5	4195	$(\text{C}:\text{C}) (\text{C}:\text{C})$	4.2	257
	3.9	115	(66) (O:C)	4.9	4207	(N:C) (C:C)	4.1	467
(N:C) (C:C)	4.3	465	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	4.6	4293	(N:C) (C:C) ₂	4.2	488
(O:C) (C:C)	4.1	685	(66) (O:C) (C:C)	4.7	4297	(N:C) (C:C) ₃	4.2	520
(O:C) (C:C) ₃	4.2	835	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	4.6	4319	(O:C) (C:C)	4.2	522
(O:C) (C:C)	4.1	1059	(63)	4.8	4666	(O:C) (C:C) ₂	4.2	676
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(64) (C:C)	4.6	5022	(O:C) (C:C) ₂	4.3	785
(O:C)	3.6	1224		4.6	5026	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	4.1	1053
$\begin{array}{c} \text{S} \\ \vdots \\ \text{S} \end{array} (\text{C}:\text{C})$			(65)	4.5	5091	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	4.2	1064
(S:C)	3.7	1308	(N5) (O:C)	4.0	5208	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	1.7	1235
(6)	3.7	1372	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(O:N)	3.8	1278
	3.9	1427	(N6) ₂	4.0	5374	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$		
	3.8	1448	(N6:O)	3.7	5544	(6)	4.7	1386
	4.4	1469	(N66)	4.3	5718		3.9	1397
	4.1	1472		4.2	5731		4.0	1442
		1565	(N66:O)	4.1	5866		4.1	1443
	3.9	1617	(O:N66:O)	4.2	5919			1471
	4.6	1746	(N665)	4.6	5927			1507
		1834	(N665) (O:N)	4.5	5953		3.9	1508
		1839	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$				3.9	1619
(6) ₂ (C:C)	4.3	2075	(N63)	4.6	5962			1639
(6) ₃ (N:N) ₂	4.0	2371	(N25:O) (6) (O:N)	4.0	6095			1737
(6) ₂ (N:C)	4.2	2514	(N26)	4.3	6159			1742
(6) (O:C)	3.8	2713		3.9	6189	(6) ₂	4.0	1760
	4.0	2738		4.5	6249	(6) ₅	4.6	1931
	4.2	2783		4.0	6250	(6) ₃ (N:N) ₂	4.7	1972
(6) (O:C) ₂	4.4	2843		3.8	6280	(6) ₄ (N:N) ₃	4.3	2375
(6) ₂ (O:C)	4.1	2909		4.1	6315	(6) (N:C)	4.0	2385
(6) (O:C) (C:C)	4.2	3008		4.3	6333	(6) (N:C)	4.3	2414
(6) (O:C) (C:C) ₂	3.9	3018		4.2	6339	(6) (N:C)	4.2	2622
(6) (O:C) (O:C) (C:C)	3.8	3438	(N26:O) (6)	4.3	6524	(6) ₂ (N:C) (C:C)	4.4	2641
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(N265)	4.5	6641	(6) (O:C)	4.4	2726
(6) (O:N)	4.3	3499	(N266)	4.4	6662		4.2	2825
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$				4.5	6670	(6) (O:C) ₂	4.2	2855
	3.9	3545	(N263)	4.6	6795	(6) (O:C) (C:C)	3.8	3006
	4.2	3560	(N365) (6)	4.3	7003	(6) (O:C) (C:C) ₂		3022
	4.3	3637	(N465) (6)	4.2	7173	(6) (O:C)		3136
(6) (O:N) ₂	4.3	3719	(O:N465:O)	3.9	7282	$\begin{array}{c} \text{N} \\ \vdots \\ \text{N} \end{array} (\text{C}:\text{C})$		
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(N466:O)	4.1	7316	(6) (O:C) ₂	3.9	3148
(6) (O:N) ₃	4.3	3728	(S5)	3.8	7959	$\begin{array}{c} \text{N} \\ \vdots \\ \text{N} \end{array} (\text{C}:\text{C})$		
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(S665)	4.9	8133	(6) (O:C)	3.8	3229
(6) ₂ (O:N)	4.0	3739	(SN65)	4.6	8274	$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$		3272
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$			(SeN265)	3.7	8439	(6) (O:N)	4.2	3282
(6) (O:N) (C:C)		3786				$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$	3.9	3561
$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$		3797				$\begin{array}{c} \text{O} \\ \vdots \\ \text{O} \end{array} (\text{C}:\text{C})$		3610
(7:O) (6)	4.4	4065				(6) ₂ (O:N)	4.1	3744

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) (O:N) (C:C) O		3784	(Se665)	4.5	8415		4.0	3236
(6) ₂ (O:N) ₂ (N:C) ₂ O	4.6	3856					3.9	3247
(7:0)	4.2	4042	$\lambda_{\max.}: 235-235.5\mu$			(6) (O:C) S	4.1	3284
(66)	5.0	4123	none	2.7	11	(6) (O:N) ₂	3.7	3478
	4.7	4153	(C:C) ₂	4.4	106	(6) (O:N) O	4.2	3498
	4.5	4203		4.0	109		4.2	3530
(66) (C:C)	4.4	4238		3.7	110		4.2	3548
(66) (O:C)	4.5	4285			116		4.2	3557
(66) (O:C) O		4301	(N:C) (C:C) ₂	4.3	482	(6) (O:N) (C:C) O	4.1	3619
	4.7	4308	(N:C) (C:C) ₃	3.7	523			3795
	4.8	4309	(O:C) (C:C)	4.1	644			
(66) (O:N) O	4.1	4348		4.1	664	(7:0)	4.5	4045
				4.1	672	(7:0) (6)	4.3	4069
(75)	4.2	4548		4.3	688	(66)	4.2	4154
(64) (O:C)	4.6	5028	(O:C) (C:C)	3.4	1032		4.7	4186
(66)	4.7	5128	O			(66) (N:C)	4.4	4250
(N6)	4.0	5299	(O:C) (N:C) (C:C)	4.0	1178	(66) (O:C)	4.3	4284
(N6) (C:C)	4.1	5399	O			(66) (O:C) O	4.8	4305
	4.0	5400	(O:C)	3.7	1225			
	4.1	5402	S			(66) (6) (N:N)	4.4	4388
	4.0	5403	(O:C)	1.7	1233		4.4	4413
(N66)	4.4	5725	Cl	1.7	1234	(75)	4.2	4560
	4.2	5740	(O:N)	3.7	1252	(75) (O:C)	4.2	4574
(N66) (N:N)	4.5	5809	(O:N)	3.8	1277	(75) (6) (N:N)	4.3	4595
(N66:O)	4.1	5869	O			(665) (O:C) ₂	4.4	4600
(N66:O) (6)	4.7	5913	(O:N) (C:C)	4.0	1288	(O:6 ₃ :O)	4.6	4744
(N ₂ 6)	4.1	6157	O			(635)	4.6	4879
	4.2	6163		4.0	1292	(N5) (O:C) (O:C) O	4.4	5221
		6182		3.8	1294			
	4.1	6213	(6)	4.2	1409	(N6)	4.0	5268
	3.9	6223			1489			5293
	4.0	6228		4.0	1545			5294
	3.9	6230		3.8	1623			5341
	3.8	6242		4.2	1651	(N6) (C:C)	4.1	5393
	4.1	6327			1731	(N6:O)	4.2	5511
(N ₂ 6:O)	3.9	6425			1820		4.0	5513
(N ₂ 66)	4.4	6667			1852	(N66)	4.5	5659
	4.2	6675	(6) ₂	4.0	1859		4.3	5694
(O:N ₄ 65:O)	3.9	7297	(6) (C:C)	4.2	2135		4.3	5727
(O:N ₅ 65:O)	3.7	7395	(6) (N:N)	4.2	2152	(N66) (6) (C:C)	4.4	5829
(O6:O) (O:C) O	3.8	7614	(6) ₂ (N:N)	4.0	2167	(N665)	4.6	5941
			(6) ₂ (N:N) O	4.0	2403		4.3	5944
(ON65) (6)	3.9	7909	(6) (N:C)	4.1	2426	(N6 ₃)	4.6	5973
(ON65) (6) (O:N) O	4.1	7927		4.1	2427		4.6	5974
			(6) (O:C)	4.3	2712	(O:N ₂ 5:C) (6)	4.3	6110
(ON ₂ 5:O) (6)	4.0	7943		4.5	2717	(N ₂ 6)	4.2	6168
(S5)	3.9	7957		4.2	2824		4.0	6245
(S5) (O:C) O	3.8	8009	(6) ₂ (O:C) ₂	4.3	2930		4.4	6251
			(6) (O:C) (C:C)	4.0	3001		4.0	6326
(S665) (O:N) O	4.7	8147	(6) (O:C) O	4.4	3171		4.4	6332
				4.1	3176		4.3	6357

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.3	6459		4.0	1475	(N6)		5292
(N ₂ 6:S)	4.6	6555		3.8	1551			5295
(O:N ₂ 6:O) (O:N)	3.8	6604		3.9	1554	(N6) (O:C) (C:C)	3.8	5415
$\begin{array}{c} \text{O} \\ \end{array}$	3.9	6605		4.0	1640	(N66)	4.4	5676
(N ₂ 66)	4.6	6669		3.2	1692		4.4	5744
(N ₃ 5) (6)	4.1	6866		4.3	1745		4.3	5745
	4.1	6873		3.8	1748	(N66:O)	4.1	5894
(N ₃ 5) (6) ₂	4.2	6885		3.9	1755	$\begin{array}{c} \text{O} \\ \end{array}$		
(N ₃ 66:O)		7009	(6) ₅	4.5	1973	(O:N ₂ 5:C) (6)	4.0	6120
(N ₄ 65)	4.1	7134	(6) ₂ (C:C) ₂	4.2	2108	(N ₂ 6)	4.3	6156
	3.8	7170	(6) (N:N)	4.2	2151		4.0	6161
(N ₄ 65:O)	3.5	7185	(6) ₂ (N:N)	3.7	2162		4.1	6171
$\begin{array}{c} \text{O} \\ \end{array}$	4.0	7293	(6) ₃ (N:N) ₂	3.9	2366		3.9	6220
(O:N ₄ 65:O)	4.0	7294	(6) (N:C) ₂	4.1	2497		3.9	6234
(O5) (6) ₂	4.3	7519	(6) ₂ (N:C) ₂	4.2	2557		4.0	6239
(S5)	3.7	7954		4.2	2558		3.9	6243
	3.7	7958		4.6	2561		4.2	6338
	4.0	7972	(6) (N:C)	3.9	2623	(N ₂ 6:O)	3.8	6499
(SN65:S)	4.4	8341	(6) (O:C)	4.2	2690	(N ₂ 6:O) (N:C)	3.6	6529
(SeN65:O)	4.5	8434		3.7	2730	(N ₂ 66)	3.5	6665
			(6) (O:C) ₂	4.4	2842	(N ₂ 66) (O:N)	4.2	6701
			(6) (O:C) (C:C)	4.0	2991	$\begin{array}{c} \text{O} \\ \end{array}$		
$\lambda_{\text{max.}}: 236-236.5\text{m}\mu$				3.9	2999	(N ₂ 66:O) (O:N)	4.2	6743
			(6) ₂ (O:C) (C:C)		3077	$\begin{array}{c} \text{O} \\ \end{array}$		
(C:C) ₂	3.9	101	(6) ₂ (O:C) (C:C) ₂	4.3	3095	(N ₂ 6 ₃ 5)	4.9	6843
	4.3	114		4.3	3096	(N ₃ 5) (N6)	3.9	6898
		117	(6) (O:C)	3.9	3142	(N ₃ 6)	3.4	6910
	3.1	144	$\begin{array}{c} \text{N} \\ \end{array}$				4.0	6911
(C:C) ₂	2.6	234	(6) (O:C)	4.1	3174	(N ₃ 65) (O:N)	4.2	6983
(N:C) ₂	4.2	387	$\begin{array}{c} \text{O} \\ \end{array}$	3.9	3202	$\begin{array}{c} \text{O} \\ \end{array}$		
(N:C) (C:C)	4.3	419		3.8	3207	(O:N ₄ 65:O)	3.9	7286
	4.3	424		3.9	3208	$\begin{array}{c} \text{O} \\ \end{array}$		
	4.1	466		4.1	3312	(O:N ₄ 66:O)	4.3	7348
	4.1	468	(6) ₂ (O:C) (C:C)	4.2	3383	(O66:O) (6)		7702
	4.2	473	$\begin{array}{c} \text{O} \\ \end{array}$	4.2	3384	(ON65) (6)	3.9	7910
(N:C) (C:C) ₂	4.2	490	(6) ₂ (O:C) (N:C) (C:C)			(S5)	3.9	7960
(N:C) (C:C) ₃	4.3	509	$\begin{array}{c} \text{O} \\ \end{array}$	4.3	3404		4.0	7962
	4.2	516	(6) (O:N)		3526		3.9	7970
	4.3	517	$\begin{array}{c} \text{O} \\ \end{array}$	4.2	3542	(S65)	4.4	8107
(N:C) (C:C) ₅	4.4	528	(6) (O:N) ₂	4.0	3698	(S665) (O:C)	4.6	8140
(O:C) (C:C)	3.7	651	$\begin{array}{c} \text{O} \\ \end{array}$			$\begin{array}{c} \text{O} \\ \end{array}$		
	4.0	687	(7:O)	4.4	4047	$\begin{array}{c} \text{O} \\ \end{array}$		
(O:C) (C:C) ₂	4.2	774	(66)	4.7	4184	(O:SN5:C) (6)		8233
(O:C) (C:C)	4.0	1054	(66) (O:C) ₂ (C:C)	4.4	4295	$\begin{array}{c} \text{O} \\ \end{array}$		
$\begin{array}{c} \text{O} \\ \end{array}$			(66) (O:C)	4.7	4300	(S:SN5:C) (6)	3.9	8236
(O:C) (O:C) (C:C)	4.0	1197	$\begin{array}{c} \text{O} \\ \end{array}$			(SN65:S)	4.2	8340
$\begin{array}{c} \text{O} \\ \end{array}$			(66) (6)	4.7	4363	(SN665)	4.6	8348
(O:N)	3.9	1279	(6 ₃ 5)	4.7	4875	(SN6 ₃ :O)	4.4	8374
$\begin{array}{c} \text{O} \\ \end{array}$				4.7	4877	(Se665) (O:N)	4.5	8418
(S:C)	4.1	1301		4.6	4880	$\begin{array}{c} \text{O} \\ \end{array}$		
	4.2	1302		4.6	4889			
(6)		1370	(6 ₄ 5:O)	4.4	5065	$\lambda_{\text{max.}}: 237-237.5\text{m}\mu$		
	3.5	1420	(N5) (6) (O:C)	4.3	5235			
	4.4	1435	$\begin{array}{c} \text{O} \\ \end{array}$	4.2	5237	(C:C) ₂	4.0	90

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.2	126	(O:6 ₃ :O)	4.3	4824	(O:C) (C:C) ₂	3.6	813
(C:C) (C:C)	4.2	245	(6 ₅)	4.4	5074	(O:C) ₂ (C:C) ₃	3.1	1140
(C:C) ₂ (C:C) ₂	4.5	282	(N6) ₂	4.1	5375	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(N:C) ₂	4.1	390	(N6) (6) (O:C) (C:C)	3.9	5485	(O:C) (O:C) (C:C)	4.0	1193
(N:C) (C:C)	4.1	474		3.9	5487	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(O:C) (C:C)	4.1	642	(N6:O)	3.9	5525	(O:C) (O:C) (C:C) ₂	4.2	1215
	4.1	703		3.9	5537	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
	3.9	704	(N66:O)	4.2	5881	(O:C)	3.4	1223
	3.9	750		4.3	5886	$\begin{array}{c} \text{S} \\ \\ \text{O} \end{array}$		
	3.7	765	(N665)	4.5	5928	(O:N)	3.9	1282
(O:C) ₂ (C:C)	4.1	906	(O:N ₂ 5:C)	3.7	6098	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(O:C) (N:C) (C:C)	4.0	1179	(N ₂ 6)	4.0	6226	(6)	4.3	1432
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				3.9	6270		4.1	1434
(O:C)	3.4	1222		4.4	6331		3.9	1625
$\begin{array}{c} \text{S} \\ \\ \text{O} \end{array}$				4.3	6356		4.2	1657
(6)	3.2	1391		4.3	6358		3.9	1684
	4.2	1406	(N ₂ 66)	4.4	6663		3.9	1757
	3.9	1447		4.6	6668	(6) (C:C)		2006
	4.1	1474	(N ₂ 66:O)	4.1	6719		3.6	2009
		1514		4.1	6723	(6) (C:C) ₃	4.6	2059
	3.8	1628	(N ₂ 665)	4.6	6765	(6) ₂ (C:C)	4.1	2090
	3.9	1661		4.7	6774	(6) ₂ (C:C) ₂	4.1	2106
	3.9	1683		4.6	6775	(6) (N:C)	4.3	2428
		1703	(N ₄ 65) (6)	4.1	7171	(6) (N:C) (N:N)	4.1	2644
		1770	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(6) (O:C)		2666
		1818	(O:N ₄ 65:O)	3.8	7303		4.1	2683
(6) ₂	3.9	1862	(O:N ₄ 66:O) (6)		7342		3.9	2694
(6) (C:C)		1989	(O5) (O:C)		7463		3.8	2716
(6) (C:C) ₂	4.6	2054	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$					2733
	4.6	2055	(O5) (O:N) ₂	4.1	8029		4.5	2807
(6) ₂ (C:C) ₂		2103	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(6) (O:C) ₂	4.4	2847
(6) (C:C)		2136	(S665)	4.6	8136	(6) (O:C)	4.0	3225
(6) ₂ (N:N)		2285	(S665) (O:N)	4.6	8144	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.0	3226
(6) (N:C)	4.0	2488	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.6	8148		3.9	3252
(6) (N:C)	4.3	2631	(SN ₂ 6655)	4.5	8401		4.2	3311
(6) (O:C)	4.1	2823				(6) (O:C) (C:C) ₂	3.9	3368
(6) (O:C) (C:C) ₂	3.9	3021				$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.3	3369
(6) (O:C)	4.0	3203	$\lambda_{\text{max.}} : 238-238.5\text{m}\mu$			(6) (O:C) (O:C) (C:C)	4.1	3413
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$						$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.3	3425
(6) (O:N) (C:C)		3776	(C:C) ₂	3.5	94	(6) (O:N)	4.0	3594
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				4.3	102	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(7:O)	4.4	4039		4.2	108	(7:O)	4.4	4040
(66)	4.8	4129		3.6	138		4.5	4041
	4.9	4132		4.2	143	(65:C) (6)	4.2	4096
	4.3	4200		4.4	145	(66)	4.7	4180
	4.6	4202		4.4	150			4208
	4.9	4209		4.4	153	(66) (C:C)	4.7	4235
	4.8	4210	(C:C:C:C:C:C)	5.2	301	(66) ₂ (C:C) ₂	4.6	4242
		4211	(N:C)	3.8	325	(66) (O:C)	4.8	4306
(66) (O:C) (C:C)	4.2	4287	(N:C) (C:C)	4.2	470	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(66) (6) (C:C:C)	4.6	4375	(N:C) (C:C) ₄	4.5	524	(66) (O:N)	4.1	4350
(75)	4.1	4538	(O:C) (C:C)	4.1	637	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
	4.3	4566		4.0	667	(66) (6)	4.7	4358
(75) (6)	4.5	4591		4.1	683	(66) (6) (O:C)	4.7	4429

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(75)	4.2	4528		3.9	689	(N ₂ 6) (N:N:N) ₂	4.3	6362
	4.2	4536	(O:C) (C:C)		984		4.4	6363
(665) (O:C) ₂	4.4	4599	N			(N ₂ 6:O)	3.7	6413
(O:6 ₃ :O)	4.5	4740	(O:C) (C:C)	3.9	1061	(O:N ₂ 6:O)	3.7	6589
(6 ₃ 5) (O:C)	4.6	4890	O			(S:N ₂ 6:O)	3.8	6621
N			(O:C) (O:C) (C:C)	4.1	1194		3.8	6622
(6 ₅) (O:C)	4.4	5094	O				4.6	6623
(N5) (6) (O:C)	4.2	5236	(O:C)	3.6	1227	(N ₂ 66) (O:N)	4.4	6696
O			S					
(N6) ₂	4.0	5376	(6)	4.1	1697	(N ₂ 665)	4.7	6766
(N6) (C:C)	3.4	5394		4.3	1700	(N ₃ 5) (6)	4.0	6863
(N6:O)	3.8	5535		4.1	1752		4.1	6872
(N66)	4.0	5699		4.1	1812	(N ₃ 6)	3.3	6936
	4.4	5716			1825	(N ₄ 65) (6)	4.3	7176
	4.5	5760			1853	(N ₄ 66)	4.2	7308
(N66) (N:N)	4.6	5810	(6) ₂	4.2	1908	(S5)	2.0	7968
(N66:O)	4.2	5878	(6) ₂ (C:C)	4.3	2087		3.9	7973
	4.1	5882	(6) ₂ (C:C) ₂	4.2	2107	(S5) (O:C) (C:C)	4.0	8023
	4.1	5885	(6) (O:C)		2660	O		
(N ₂ 6)	4.3	6355		4.1	2661	(S5) (6) ₄	4.4	8044
(N ₂ 6:O)	3.8	6422		4.1	2699			
(N ₂ 66)	4.5	6664		3.5	2705			
	4.5	6673		3.8	2718			
(N ₂ 66:O) (O:N)	4.3	6747		4.3	2806			
O				4.4	2814			
(N ₂ 6 ₃ 5)	4.5	6841	(6) (O:C)	4.0	3198	none	3.2	12
(N ₃ 66:O)		7010	O	3.8	3266	(C:C) ₂	4.4	107
(N ₄ 65)	3.9	7105		4.2	3300	(N:C) (C:C)	4.1	460
	4.2	7138	(6) (O:C) (C:C) ₂	3.9	3365		4.0	461
(N ₄ 65) (6)	4.2	7175	O				4.4	469
(N ₄ 65:O)	3.5	7179	(6) (O:C)	4.2	3444	(N:C) (C:C) (C:C) ₂	4.2	561
	4.2	7205	S	4.3	3445	(O:C) (C:C)	4.0	681
(O:N ₄ 65:O)	3.9	7264	(6) (O:N) (C:C)		3773			759
	3.9	7266	O			(O:C) (C:C) ₂	4.2	779
O:			(6) (S:C)	4.1	3904	(O:C) (C:C) ₄	3.5	854
(O:N ₄ 65:O)	3.8	7302	(66)	4.7	4165	(O:C) ₂ (C:C)	3.9	905
(O66:O) (O:C)	4.2	7681		4.5	4170	(O:C) (C:C) (C:C) ₂	4.0	955
O				4.6	4171	(O:C) (O:C) (C:C) ₂	4.1	1214
(S5)	3.8	7961	(66) (O:C)	4.7	4303	O		
(S5) (O:C)	3.7	8008	O			(O:N)	3.8	1281
O			(75)	4.2	4564	O		
(SN5)	3.9	8183		4.2	4565	(6)	4.0	1344
(SN ₂ 5) (6)	4.5	8387		4.2	4567		4.3	1407
(SN ₂ 5:N)	3.7	8390		4.3	4570		3.6	1421
(Se665)	4.7	8409	(6 ₃ 5)	4.7	4876		4.2	1428
(SeN65:S)	4.5	8437		4.7	4878		4.1	1626
			(N5) (O:C)	4.0	5207		3.8	1682
			O				4.2	1761
			(N6)	4.1	5283		4.0	1810
λ _{max.} : 239-239.5mμ				3.9	5306	(6) (C:C)	4.1	1993
(C:C) ₂	4.2	113	(N6) ₂	4.1	5377	(6) ₂ (C:C)	4.3	2088
	4.2	137		4.2	5379	(6) ₂ (N:N)	4.0	2260
(O:C) (C:C)	4.0	679	(N65) (O:C)	4.1	5576		4.0	2268
	4.1	684	(N ₂ 6)	3.8	6240			2286
						(6) (N:C)	4.0	2484

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) (N:C)	3.9	2627	(75) (6)	4.2	4592	(ON65) (6)	3.8	7911
(6) (O:C)	4.1	2648	(O:6 ₃ :O)	4.5	4813		3.8	7912
	3.8	2664		4.6	4815	(ON ₂ 665)	4.2	7950
		2668	(6 ₃ 5)	4.7	4887	(S6:O)	3.9	8101
	3.7	2681	(6 ₄) (N:C)	4.5	5018	(S665) (O:N)	4.4	8143
	4.1	2682	(6 ₄ 5)	4.8	5060			
	4.0	2701	(N6)	4.0	5271	(SN5)	3.6	8160
	4.1	2715		4.2	5278	(SN5:O)	3.8	8220
	3.3	2756		4.1	5304		3.7	8222
(6) (O:C) (C:C)	4.0	2943	(N6:O)	3.9	5523	(SN665)	4.6	8349
	4.0	2951	(N66)	4.6	5689	(S ₂ N ₂ 6655)	4.5	8402
	3.9	2955		4.0	5701	(O:S0655:O)	4.5	8404
	4.3	2986		4.3	5705	(Se665) (O:N)	4.4	8416
(6) ₂ (O:C) (C:C)	4.1	3070		4.4	5726			
(6) ₂ (O:C) (C:C) ₂	4.4	3097		4.3	5753			
(6) ₂ (O:C) (N:C) (C:C)					5755			
	4.1	3130	(N66:O)	4.1	5893	λ _{max.} : 241-241.5μ		
(6) (O:C) (C:C)	3.8	3157	(N665)	4.6	5945	none	3.3	30
			(N6 ₄)	4.5	6066	(C:C) ₂	4.4	120
(6) (O:C)	3.9	3186	(O:N ₂ 5:C) (6)	4.1	6100		4.3	142
		3263		4.1	6106	(N:C) (C:C)	4.2	394
	3.9	3264	(O:N ₂ 5:C) (6)	4.2	6113		4.3	411
	4.1	3298	(S:N ₂ 5:C) (6)			(O:C) (C:C)	4.2	639
(6) (O:C) ₂		3321		4.1	6124		4.0	647
(6) (O:C) (C:C)	4.1	3347	(N ₂ 6)		6204		4.2	674
					6206	(S:C)	3.9	690
(6) ₂ (O:C) (N:C) (C:C)					6208		4.1	1300
	4.2	3402		3.8	6273		4.1	1303
	4.4	3405		3.9	6343	(S:C:N)	3.9	1314
(6) (O:C) (O:C) (C:C)	3.9	3441	(N ₂ 6:O)	4.2	6416	(6)		1316
					6463			1403
(6) (O:N)	3.9	3517	(O:N ₂ 6:O) (O:N)	3.8	6606		4.0	1479
		3523					3.1	1480
	4.2	3617	(N ₂ 66)	4.1	6671		3.8	1528
(6) (O:N) ₂	4.2	3673	(N ₂ 66:O)	4.6	6733		4.0	1632
			(N ₂ 665)	4.7	6767	(6) ₂		1768
(6) (O:N) ₃	4.2	3720	(N ₂ 6 ₃ 5)	4.4	6839	(6) (C:C)	4.1	1936
			(N ₃ 65) (O:N)	4.2	6985	(6) ₂ (C:C)	4.1	1986
(6) ₂ (O:N) ₂	3.9	3758				(6) (N:C)	4.1	2074
			(N ₃ 65) (6)	4.3	7004	(6) (N:C)	4.1	2479
(7:O) (6) (C:C)	4.2	4086	(N ₄ 5) (6)	4.2	7037	(6) ₂ (N:C) ₂		2553
(66)	4.6	4135		4.2	7040	(6) ₄ (N:C) ₂	4.5	2574
		4138	(N ₄ 65)	3.9	7106	(6) (O:C)	3.9	2654
	4.6	4179		4.3	7144	(6) (O:C) (C:C)	4.1	3007
(66) ₂ (C:C) ₂	4.4	4241	(N ₄ 65:O)	3.9	7193	(6) ₂ (O:C) (C:C)	4.1	3059
	4.5	4243		4.2	7207	(6) (O:C)	3.9	3143
(66) (N:C)	4.7	4252	(O:N ₄ 65:O)	3.9	7250			
(66) (O:C)	4.8	4307	(O:N ₄ 65:O)	3.8	7305	(6) (O:C)	4.2	3175
				4.2	7345			3227
(75)	4.3	4530		4.2	7346		4.0	3269
	4.3	4532	(O6:O) (O:C)	4.0	7613		4.2	3283
	4.3	4540				(6) (O:C) ₂		3316
	4.2	4561	(O:ON5:C) (6) ₂	4.1	7808			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂ (O:C)(N:C)(C:C)				4.1	7142	(6) ₂ (N:C)	4.3	2511
$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:C})(\text{O:C})(\text{C:C}) \end{array}$	4.1	3403		3.8	7160	(6) ₂ (O:C)	3.9	2884
(6)(O:N)	3.9	3439	(O:N ₄ 65:O)	3.9	7259		3.8	2890
$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:N}) \end{array}$	4.1	3527	(N ₄ 66)	4.2	7307	(6)(O:C)(C:C)	4.3	2948
(6)(O:N) ₂	4.2	3670	(ON ₂ 5:O)(6) ₂	4.0	7044		4.2	2949
$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:N})_2 \end{array}$	4.0	3697	(S5)	3.6	7966		3.9	2952
(6)(O:N)(C:C)		3768	(S665)	4.7	8137		4.2	2954
$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:N})(\text{C:C}) \end{array}$			(S ₂ 55)	4.1	8159	(6) ₂ (O:C)(C:C)	4.4	3055
(O:6:O)	4.3	3953	(SN65:S)	4.1	8346		4.0	3073
(66)	5.0	4125	(SN665)(6)	4.6	8353			3075
	4.6	4190	(SN ₂ 5)(6)	4.5	8388	(6)(O:C)	4.3	3145
	4.5	4204	(SN ₂ 5:N)	3.7	8389	$\begin{array}{c} \text{N} \\ \\ (6)(\text{O:C}) \end{array}$		
(66) ₂	5.0	4226				$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:C}) \end{array}$	3.8	3205
(66)(O:C)		4298	λ _{max.} : 242-242.5mμ				4.1	3288
$\begin{array}{c} \text{O} \\ \\ (66)(\text{O:C}) \end{array}$						(6) ₂ (O:C)(O:C)	4.5	3411
(75)	4.5	4534	(C:C) ₂	4.0	118			
	4.4	4543		4.3	133	(6)(O:N)	4.2	3507
	3.4	4568		4.2	146	$\begin{array}{c} \text{O} \\ \\ (6)(\text{O:N}) \end{array}$	4.3	3613
(6 ₃)(O:C)	4.8	4700	(C:C) ₂	2.5	235	(6)(O:N)(C:C)		3770
(O:6 ₃ :O)	3.9	4814	(C:C)(C:C)	3.9	251			
(6 ₃ 5)	4.7	4882		3.9	252	(O:6:O)	4.2	3950
(6 ₄)	4.9	4904	(N:C)	5.1	374		4.4	3954
	4.9	4921	(N:C)(C:C) ₂	4.4	487	(66)	5.0	4124
	4.9	4965	(N:C)		567		4.0	4126
	4.8	4976		2.2	569		4.6	4131
	4.7	4981	(O:C)(C:C)	4.3	669	(66)(O:C)	4.8	4299
	4.8	4984		4.0	670	$\begin{array}{c} \text{O} \\ \\ (66)(\text{O:C}) \end{array}$		
(6 ₅ :O)	4.6	5100		4.0	696	(66)(6)(C:C) ₂	4.4	4373
(N5)(6)(O:C)	4.2	5233	(O:C)(C:C) ₂	4.0	776	(66)(6)(O:C)	4.5	4438
$\begin{array}{c} \text{O} \\ \\ (N5)(6)(\text{O:C}) \end{array}$				4.0	778	$\begin{array}{c} \text{O} \\ \\ (66)(6)(\text{O:C}) \end{array}$		
(N6) ₂	4.1	5378	(O:C)(C:C)	3.8	985	(665:N)	4.4	4609
(N6)(N5)	4.0	5491	$\begin{array}{c} \text{N} \\ \\ (O:C)(\text{C:C}) \end{array}$		1013	(O:6 ₃ :O)	4.5	4745
(N65:O)	4.5	5596	(O:C)(C:C)			(6 ₃ 5)	4.7	4881
(N66)	4.3	5677	$\begin{array}{c} \text{O} \\ \\ (O:C)(\text{C:C}) \end{array}$	4.4	1077	(6 ₃ 5:N)	4.6	4894
	4.5	5686	(O:C)(C:C) ₂			(6 ₄)	5.0	4919
	4.3	5752	$\begin{array}{c} \text{O} \\ \\ (O:C)(\text{C:C})_2 \end{array}$				4.6	4964
(N66:O)(O:C)	4.4	5905	(O:C)(N:C)	4.1	1159		5.0	5004
$\begin{array}{c} \text{O} \\ \\ (N66:O)(\text{O:C}) \end{array}$			$\begin{array}{c} \text{O} \\ \\ (O:C)(\text{N:C}) \end{array}$			(6 ₄)(O:C)	4.6	5026
(N66:S)	3.6	5915	(O:N)(C:C)	3.8	1293	(6 ₄ 5)	4.7	5059
(N6 ₃)	4.6	5974	$\begin{array}{c} \text{O} \\ \\ (O:N)(\text{C:C}) \end{array}$	3.7	1296	(6 ₆)	5.0	5115
(N ₂ 6)	3.7	6272	(S:C)	3.8	1312	(N65)(O:C)	4.3	5580
	4.5	6286	(6)	4.0	1345	$\begin{array}{c} \text{O} \\ \\ (N65)(\text{O:C}) \end{array}$		
	4.5	6289		3.7	1356	(O:N65:O)		5599
(N ₂ 66:O)(O:N)	4.2	6748		4.2	1404	(N66)	4.5	5675
$\begin{array}{c} \text{O} \\ \\ (N_2 66:O)(\text{O:N}) \end{array}$				4.1	1424		4.4	5737
(N ₂ 6 ₃ 5)	4.6	6842		4.0	1444	(N6 ₃)(O:N)	4.5	6028
(N ₃ 65)(O:N)	4.0	6986			1481	$\begin{array}{c} \text{O} \\ \\ (N6_3)(\text{O:N}) \end{array}$		
$\begin{array}{c} \text{O} \\ \\ (N_3 65)(\text{O:N}) \end{array}$	4.2	6993		4.0	1622	(N ₂ 6)	3.6	6136
(N ₄ 5)	3.4	7025	(6) ₂	4.3	1671		4.2	6166
(N ₄ 65)	3.5	7076	(6) ₂ (C:C)	4.0	1900		3.9	6237
	4.0	7100	(6) ₂ (N:N)	4.4	2068		3.8	6271
	4.1	7133	$\begin{array}{c} \text{O} \\ \\ (6)_2(\text{N:N}) \end{array}$	4.0	2404	(N ₂ 6)(N:C)	4.0	6367
							4.0	6368
						(N ₂ 665)	4.6	6780

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.7	6781	(6) ₂ (O:N) O	4.1	3749	(Se665)	4.6	8411
(N ₂ 665:O)	4.6	6788					4.6	8413
(N ₂ 63)	4.6	6807	(O:6:O)	4.2	3952	(SeN65:S)	4.3	8438
(N ₄ 65)	4.1	7161	(66)	4.5	4172			
(N ₄ 65)	4.7	7369	(75)	4.4	4550			
(O5)(6) ₂	4.3	7513	(O:6 ₃ :O)	4.5	4747	λ _{max.} : 244-244.5mμ		
(O6:O)(O:C) O	3.9	7612		4.5	4748			
				4.5	4792	(C:C) ₃	4.2	155
(S5)(O:C)	4.2	8001	(6 ₃ 5)	4.7	4883	(N:C)(C:C)	4.3	400
(S665)	4.7	8135	(6 ₄)	5.0	4920	(O:C)(C:C)	3.9	640
(SN ₂ 6655)	4.5	8400	(6 ₄ 5:O)	4.4	5065		4.4	645
(SeN65:S)	4.5	8436	(N5)(O:C) ₂ (O:C) O	4.4	5222		3.9	646
(SeSN ₂ 6655)	4.5	8442					4.0	668
			(N5)(6)(O:C) O	4.2	5232		4.3	721
							4.0	761
λ _{max.} : 243-243.5mμ			(N6)	4.1	5285	(O:C)(C:C) ₂	4.2	773
					5357		4.1	781
(C:C) ₂	4.2	119	(O:N65:O)	4.3	5598	(O:C)(C:C) ₃	4.2	851
(C:C) ₄		190	(N66)	4.4	5720	(O:C)(C:C)(C:C) ₃	4.0	957
(O:C)(C:C)	4.1	673		4.3	5728	(O:C)(C:C) O	4.2	1055
	3.8	691		3.6	5793			
(O:C)(N:C) O	4.1	1158	(N66:O)(O:C) O	3.6	5795	(O:N)	3.9	1254
(S:C)	3.7	1311		4.4	5904		3.9	1258
(6)	2.1	1451	(N ₂ 5)(6)	4.1	6072	(6)	3.9	1452
	4.2	1487	(N ₂ 6)	3.1	6132	(6)(C:C)	4.1	1782
	3.9	1630		3.4	6135		4.0	1985
		1634		4.3	6167		3.8	2045
	3.9	1750	(N ₂ 66)	4.2	6677	(6) ₂ (C:C) ₂	4.3	2109
	4.0	1759	(N ₂ 66)(O:N) O	4.3	6699	(6) ₂ (N:N)	4.1	2267
	4.1	1763					4.0	2297
	4.2	1764	(N ₂ 66:O)	4.2	6737	(6) ₄ (N:N) ₂	4.1	2383
		1795	(N ₂ 635)	4.6	6830	(6)(N:N:N) ₂	4.4	2410
		1796	(N ₃ 5)(6)	4.2	6865	(6) ₂ (P:P) ₂	4.4	2647
		1838	(N ₃ 6)	4.2	6935	(6)(O:C)	4.1	2650
(6) ₂	4.0	1876	(N ₄ 65:O)	4.0	7236		3.7	2709
	4.2	1933	(O5)(O:C) N	4.1	7459		4.2	2782
(6) ₂ (N:N)	4.0	2235				(6) ₂ (O:C)	4.2	2868
	3.9	2301	(O5)(O:C) O	3.7	7467		4.2	2871
(6) ₂ (N:C)	4.3	2510				(6) ₂ (O:C)(C:C)	4.0	3084
(6)(N:C)	4.4	2630	(O6:O)(O:C) O	4.0	7615	(6)(O:C)(C:C) ₂ O	4.2	3366
(6)(O:C)	4.1	2700						
	3.8	2702	(O66:O)(6)	4.3	7685	(6)(O:C)(O:C)(C:C) O	4.1	3414
		2722	(ON65)(O:N) O	4.0	7908			
	4.1	2752				(6)(O:N)(C:C) O		3790
(6) ₂ (O:C)	4.3	2896	(S5)	4.0	7975	(66)	4.2	4155
	4.1	2908	(S5)(N:C)	4.0	7992	(66)(6) ₂ (O:C) O	4.8	4445
(6)(O:C)(C:C)	4.1	2953	(S5)(O:C) O	3.5	8007			
	4.0	2992				(O:66:O)	4.2	4473
(6)(O:C) O	4.2	3179	(S5)(6)	4.1	8035		4.2	4489
			(S5)(O5)(O:C)(C:C)	3.7	8061	(75)(O:C) O	4.5	4584
(6)(O:N) O		3660	(S65)(O:C) O	4.2	8111			
			(S665)	4.6	8134	(O:6 ₃ :O)	4.5	4750
						(6 ₄)	4.8	4985

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6 ₄) (N:C)	4.8	5015	(O:C) (N:C)	4.0	995		4.4	3959
(N6)	4.0	5282	N			(7:0) (6)	4.5	4068
	4.2	5286	(O:C) (C:C)	3.7	1040		4.4	4071
(N6) (N5)	3.9	5493	O	3.9	1066		4.5	4072
(N66)	4.3	5712	(O:N) (C:C)	3.9	1291	(7:0) (6) (C:C)	4.2	4083
	4.5	5723	O			(7:0) (6) (O:C) (C:C)	4.3	4088
	4.2	5735	(6)		1373	O		
	4.5	5736			1405	(65:C) (6) (C:C)	4.3	4097
	3.5	5794		3.9	1416	(66)	4.3	4145
(N ₂ 6)	3.4	6134		4.1	1425		4.6	4166
	3.5	6144			1465		4.5	4173
	3.7	6145			1633		4.5	4181
	4.0	6235		4.0	1753		4.6	4205
	3.9	6264		4.2	1854	(66) (N:C)	4.6	4251
(N ₂ 6) (N:C)	4.5	6365	(6) (C:C)		1989	(66) ₂ (N:C) ₂	4.3	4259
(N ₂ 6:O) (6) (O:N)	4.0	6534		4.1	1998	(66) (O:C)	4.4	4271
O			(6) (N:C)	3.6	2449	(66) (O:C) (C:C)	4.2	4287
(N ₂ 65)	3.8	6642		3.8	2496	(O:66:O)	4.3	4456
(N ₂ 66) (6) ₂	4.5	6708	(6) (N:C) ₂	4.1	2498		4.2	4481
(N ₂ 665)	4.6	6778	(6) ₂ (N:C)	4.5	2516		4.2	4483
(N ₂ 6 ₃)	4.6	6822	(6) (O:C)	4.1	2684	(75) (O:C)	4.2	4580
(N ₃ 5) (6)	4.2	6868		4.1	2706	O		
(N ₃ 5) (6) ₃	4.5	6892		4.3	2826	(75) (O:C) ₂	4.4	4587
(N ₃ 6) (6)	4.3	6943	(6) ₂ (O:C)	4.2	2887	O		
(N ₃ 65) (O:N)	4.3	6987	(6) (O:C) (C:C)	4.3	2948	(O:6 ₃ :O)	4.6	4739
O	4.2	6994		3.8	2993		4.5	4743
(N ₄ 665)	4.5	7353		3.8	2995		4.3	4791
	4.2	7354	(6) ₂ (O:C) (C:C)	4.2	3060		4.2	4810
(O5) (O:C)	4.0	7461	(6) (O:C) (N:N) (C:C)	4.1	3129	(6 ₄)	4.6	4977
O			(6) (O:C) ₂	4.6	3147	(6 ₅)	5.0	5078
(O5) (6) ₄	4.4	7542	N			(6 ₇)	4.9	5143
(O6 ₅)	4.7	7787	(6) (O:C) (N:N)	3.8	3161	(N6)	4.0	5274
(S5)	3.5	7965	N				3.8	5309
(SN ₂ 5)	3.9	8383	(6) (O:C)	4.1	3213	(N6) (C:C)		5398
(Se665)	4.7	8412	O	4.2	3299	(N6) (6)	4.1	5439
				3.9	3320	(N6) (6) ₂	4.5	5444
			(6) ₂ (O:C)	4.4	3324	(N6) (6) (O:C) (C:C)	3.9	5484
			O				3.9	5486
			(6) (O:C) (C:C)	3.9	3338	(N65) (O:6:O)	4.3	5586
			O	4.4	3364	(N65) (O:66:O)	4.2	5591
			(6) (O:C) (O:C) (C:C)	4.0	3412	(O:N65:O)	4.4	5602
			O			(N66)	4.6	5684
				4.1	3421		4.3	5692
			(6) (O:N)	4.3	3506		4.0	5696
			O	3.7	3562		4.2	5733
				3.9	3589		3.7	5790
					3638	(N66:O)	4.0	5895
				4.0	3657	(O:N ₂ 5:C)	4.2	6099
			(6) (O:N) (C:C)		3788	(O:N ₂ 5:C) (6)	4.1	6103
			O				4.1	6104
			(6) ₂ (O:N) ₂ (N:C) ₂	4.6	3855		4.1	6105
			O				4.1	6125
			(O:6:O)	4.4	3951	(S:N ₂ 5:C) (6)	4.1	6126
				4.4	3956		4.2	6127
$\lambda_{\max.}$: 245-245.5m μ								
none	2.6	24						
(C:C) ₂	4.2	105						
(C:C) ₄	4.1	191						
(C:C) ₃ (C:C)	5.0	286						
(N:C)	4.0	364						
(N:C) (C:C)	4.3	425						
(N:C) (C:C) ₂	4.2	491						
(N:C) ₂ (C:C) ₆	4.1	548						
(O:C) (C:C)	3.6	686						
	3.7	699						
	4.1	734						
(O:C) (C:C) ₂	4.1	780						
	4.2	784						
(O:C) (C:C) ₅	3.6	866						

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₂ 6)	3.4	6143		4.6	8414		4.5	4789
	3.3	6147					4.2	4794
	4.0	6221					4.5	4803
(N ₂ 6) (O:C) O	3.3	6372	$\lambda_{\max.}: 246-246.5\text{m}\mu$			(635)	4.7	4886
(N ₂ 6:O)	3.6	6462	(C:C) ₁₃	4.4	223	(64)	5.0	4941
	3.9	6465	(N:C) (C:C)	4.0	433	(66)	4.8	5132
(N ₂ 6:S)	4.3	6556		4.0	443	(N5) (6) (O:C) O	4.3	5234
	4.2	6557	(O:C) (C:C)	4.2	649	(N6)	4.3	5287
	4.1	6558		3.4	714			5290
(N ₂ 65)	3.8	6632	(O:C) ₂ (C:C)	4.1	908		3.7	5297
	4.1	6638	(O:C) (O:C) (C:C) O	4.1	1195	(N6) (C:C)	3.9	5395
	4.5	6645					4.2	5396
(N ₂ 66) (O:N) O	4.2	6705	(6)	4.0	1400	(N6) (6)	4.2	5440
(N ₂ 665)	4.6	6784		4.3	1488	(N6) (6) (O:C) (C:C)	3.9	5488
(N ₂ 63) (O:C) O		6825		4.8	1491	(N66)	4.5	5683
			(6) ₂	4.2	1814		4.6	5687
(N ₂ 63) (6)	4.4	6827		4.2	1857		4.1	5742
(N ₂ 635)	4.5	6831	(6) (C:C)	4.1	1897		4.3	5799
	4.5	6832			1994	(N66:O)	4.1	5867
	4.5	6836		4.0	2002		4.1	5872
(N ₂ 65)	4.7	6854		4.1	2039	(N66:O) (O:C)	4.5	5902
(N ₃ 5) (6)	4.2	6871	(6) ₂ (C:C)	4.1	2044	(N665)	4.5	5948
(N ₃ 65) (O:N) O	4.1	6997	(6) (N:C)	4.2	2064	(N ₂ 6)	2.8	6131
			(6) ₂ (N:C)	3.6	2425		3.6	6148
(N ₄ 5)	4.4	7021	(6) (O:C)	4.3	2501		4.3	6158
(N ₄ 65)	3.5	7084		3.9	2692		4.1	6160
	4.0	7153		4.1	2703		3.9	6178
	4.1	7155		4.0	2708		4.1	6244
(N ₄ 65:O)	3.8	7197	(6) (O:C) ₂	4.1	2732	(N ₂ 6:O) (6) (N:N)	4.3	6528
	3.9	7203		4.4	2849	(N ₂ 65)	3.7	6633
(O:N ₄ 65:O)	3.9	7289	(6) (O:C) (C:C)	4.5	2852	(N ₂ 66)	4.3	6689
	3.9	7290	(6) (O:C) (O:C) (C:C)	3.8	2996		4.3	6691
O: O:N ₄ 65:O	3.9	7300	O	4.1	3420	(N ₂ 635)	4.5	6837
(O:N ₄ 66:O)	4.1	7330	(6) (O:N)	4.4	3510	(N ₄ 65)	3.9	7101
(O5) (O:C) O	4.1	7462	O	4.1	3658		3.6	7149
	4.2	7465	(6) ₂ (O:N)	4.0	3659	(N ₄ 65:O)	4.0	7196
	4.1	7466	O	4.1	3748		3.9	7221
	4.4	7470	(6) (O:N) (C:C)		3771		3.8	7225
(O65)	4.1	7624	O			O: O:N ₄ 65:O	3.9	7299
(O66:O) (6)		7690	(7:O) (6)	3.7	4067	(O:O5:C) (66) (6)	4.2	7564
		7703	(66) (C:C)	4.7	4234	(O665:O)	4.8	7771
	4.1	7723	(66) (O:C)	4.8	4267	(S5)	4.3	7963
	4.2	7742	(66) (6) (N:N)	4.5	4386	(S5) (O:N) ₂ O	4.3	8028
(S5) (O:C) O	3.9	8006	(66) (6) (O:C) O	4.6	4439	(SN65) (6) (O:N) O		8288
(S5) (O:N) ₂ O	4.0	8027	(O:66:O)	4.3	4455			
				4.4	4457			
(S5) (N ₄ 5)	4.1	8059		4.2	4487	$\lambda_{\max.}: 247-247.5\text{m}\mu$		
(SN65:O)	4.0	8339	(75)	4.5	4552			
(SN ₂ 5)	3.9	8384		4.2	4555	none	2.8	44
(Se665)	4.7	8410	(O:63:O)	4.5	4749	(C:C) ₂	3.9	127

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N:C) (C:C)	4.0	455	(O:63:O)		4796			8223
(O:C) (C:C)	3.9	692			4837	(SN ₂ 5)	3.9	8381
	4.0	694	(6 ₄)	4.9	4942	(SN ₂ 6655)	4.7	8399
	4.2	760		4.8	4959	(SeN65:O)	3.8	8433
(O:C) (N:C)	4.2	964	(6) ₄ (C:C)	4.6	5013	(SeN65:O)	3.9	8435
(O:C) (C:C)	3.9	1060	(6 ₄ 5) (O:C) ₂ N	4.7	5064			
(O:C) ₂ (N:C) (C:C)	3.9	1173	(6 ₅ :O)	4.6	5098	$\lambda_{\max.}$: 248-248.5m μ		
(6)		1418	(N65) (O:N)	4.1	5582			
	3.9	1423	(N65:O)	4.5	5596	(C:C) ₂	3.9	97
	4.1	1627	(O:N65:O)	4.5	5597		4.5	122
	4.0	1644	(N66)	4.5	5706			129
	4.2	1758		4.3	5719		4.4	131
	3.7	1765		4.3	5722	(N:C)	4.9	344
		1767		4.2	5732	(N:C) (C:C)	4.1	412
		1769		4.1	5796		3.9	420
		1771	(N66:O)	4.1	5879		4.3	429
	3.8	1800	(N66:O) (O:C)	4.5	5903	(O:C) (C:C)	4.2	675
	4.0	1816	(N6 ₄)	4.8	6050		3.9	749
(6) ₂	4.3	1858	(N ₂ 5:O) (6)	4.0	6094		3.8	764
	4.1	1894	(N ₂ 6)	3.6	6149	(O:C) (O:C) (N:C)	4.1	1216
(6) ₃	4.5	1964		3.5	6255	O		
(6) (C:C)	4.1	1999		3.5	6263	(O:5:C)	4.4	1320
		2005		3.5	6265	(6)		
(6) ₂ (N:N)	4.1	2306	(N ₂ 6) (N:C)	4.0	6369		3.6	1395
(6) (N:C)	4.4	2420	(N ₂ 6:O)	3.9	6503			1415
	4.2	2421	(N ₂ 66)	4.3	6690		4.1	1529
	4.0	2463	(N ₂ 66) (O:N)	4.4	6695		3.9	1577
(6) ₂ (N:C)	4.1	2518	O	4.1	6704		4.1	1662
(6) ₄ (N:C) ₂	4.7	2577	(N ₂ 665)	4.6	6785		3.9	1699
(6) (O:C)	4.0	2686		4.3	6787		3.2	1835
	4.2	2696	(N ₃ 6) (6)	4.3	6945		4.2	1842
	4.4	2719	(N ₃ 65) (O:N)	4.3	6988	(6) ₂	4.3	1886
(6) ₂ (O:C)	4.2	2873	O	4.1	6991	(6) ₃	4.4	1962
(6) (O:C) (C:C)	4.0	2945	(N ₄ 65)	3.2	7067	(6) (C:C)	4.1	2000
(6) ₂ (O:C) (C:C)	4.6	3091		3.2	7068		4.0	2037
(6) (O:C)	3.8	3184	(N ₄ 65:O)	4.2	7191		4.1	2050
O	4.1	3219		4.1	7217		4.1	2051
(6) (O:C) (C:C)		3386	(N ₄ 65:O)	3.7	7247	(6) ₂ (C:C) ₂	4.0	2105
O			(O:N ₄ 65:O)	3.9	7264	(6) ₂ (N:N)	3.9	2300
(6) (O:N)	3.8	3490		3.9	7267		3.9	2302
O	4.2	3511	(N ₄ 665)	4.3	7355	(6) ₂ (N:C)	4.2	2522
	4.2	3512	(N ₄ 65)	4.7	7370	(6) ₄ (N:C)	4.5	2579
	3.9	3652	(N ₅ 65:O)	3.9	7387	(6) (O:C)		2680
(6) ₂ (O:N)	4.1	3741		3.9	7388		4.1	2688
O			(O66:O) (O:C)	4.2	7682		4.0	2819
(O:6:O)	4.3	3955	O			(6) ₃ (O:C) ₂	4.3	2933
(7:O) (6)	4.3	4077	(O66:O) (6)		7688	(6) (O:C) (C:C)	4.0	2956
(66)		4188			7689	(6) ₂ (O:C) (C:C)	4.1	3045
(66) (C:C)	4.7	4231			7700		4.1	3056
(66) (O:C)	3.9	4272			7701		4.2	3057
(66) (6) (O:C)	4.5	4437			7706	(6) ₂ (O:C) (C:C)	4.1	3062
O				4.7	7730	(6) (O:C)		3138
			(SN5:O)	3.6	8221	N		

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) (O:C)	3.6	3185		4.0	7195	(6) (O:N) ₂	4.1	3679
_O	3.7	3200		4.0	7212	_O		
(6) (O:N)	4.0	3508		4.0	7213	(6) ₂ (O:N)	4.0	3752
_O	4.1	3621	(05) (O:C)	4.1	7460	_O		
	3.9	3651	_N			(6) (O:N) (N:C)		3847
(6) (O:N) (C:C)		3775	(O:O5:O) (6) ₂	4.3	7555	_O		3848
_O		3800	(066:O) (6)		7704			3849
(N:6:N:N)	3.8	3934			7705	(7:O)	4.7	4049
(66)		4142	(ON ₂ 665)	4.2	7949	(66) (6) (N:N)	4.2	4384
(66) (O:C) (C:C) ₂	4.1	4294	(S5) (N ₄ 5)	4.0	8056		4.2	4387
(O:66:O)	4.2	4496	(SN5:S) (6) ₂ (C:C)	4.1	8230		4.2	4412
(75)	4.6	4556	(SN665)	4.8	8350	(66) (6) (O:C)	4.3	4431
(6 ₃)	4.5	4667				(O:66:O)	4.3	4465
	4.7	4669					4.3	4474
(O:6 ₃ :O)	4.6	4742	$\lambda_{\max.}: 249-249.5\text{m}\mu$				4.1	4477
		4768					4.4	4495
	4.5	4790	(C:C) (C:C)	3.9	251	(75)	4.4	4558
(6 ₃ 5)	4.6	4885	(O:C) (C:C)	4.2	678	(6 ₃) (6)	4.9	4720
(6 ₄)	4.9	4962		3.8	702	(6 ₄) (N:C)	4.5	5021
(O:6 ₄ :O)	4.6	5053	(O:C) (C:C) ₂	4.1	777	(6 ₄) (O:C)	4.6	5023
(76 ₃)	4.4	5058	(O:C) (N:N:C)	4.0	1191	(N65)	4.0	5568
(6 ₅)	4.6	5076	_O			(N66)	4.5	5690
(N6)	3.3	5240	(O:C)	3.6	1228	(N66:O)	4.1	5887
(N6) (6) ₂	4.6	5443	_S	3.6	1230	(N6 ₃)	4.6	5963
	4.6	5445		3.6	1231		5.3	5966
(N66)	4.2	5702	(O:N)	3.9	1256		5.2	6004
	4.6	5704	(6)	3.9	1576		4.6	6018
	4.2	5717			1631	(N6 ₃) (O:N)	4.4	6030
	4.2	5741		4.1	1714	_O		
(N66:O)	4.2	5883			1732	(N ₂ 6)	3.5	6140
	4.2	5892		4.3	1817		4.0	6238
(N6 ₃)	4.9	6005		4.4	1833	(N ₂ 66:O)	4.3	6740
(N ₂ 6)	3.1	6130	(6) ₂	4.3	1855	(N ₂ 665)	4.3	6772
	3.1	6132		4.2	1863		4.6	6782
	3.5	6141	(6) (C:C)	4.1	2001	(N ₃ 65) (O:N)	3.9	6995
	4.1	6287	(6) ₂ (N:N)	4.1	2303	_O	4.1	6998
	4.1	6288	(6) (N:N)	4.1	2397	(N ₄ 5)	4.3	7020
	3.5	6297	_O			(N ₄ 65)	3.8	7111
	4.1	6344	(6) (N:C)	4.4	2419	(N ₄ 65:O)	4.0	7182
(N ₂ 6) (6) (N:N:N) ₂	4.5	6393		4.1	2437		3.9	7239
(N ₂ 6:O)	3.9	6438	(6) (O:C)	4.0	2691	(N ₄ 665)	4.4	7356
(N ₂ 6:S)	4.5	6561		4.2	2704	(05) (O:C)	4.1	7468
(N ₂ 65)	3.7	6643		4.0	2721	_O		
(N ₂ 66)	4.2	6674		4.2	2812	(05) (O:C) (C:C)	4.0	7483
(N ₂ 665)	4.1	6771	(6) (O:C) ₂	4.3	2846	_O		
(N ₂ 6 ₃) (6)	4.5	6828	(6) ₂ (O:C)	4.5	2881	(05) (N ₂ 6) (N:N:N) ₂	4.3	7553
(N ₂ 6 ₃ 5)	4.4	6838	(6) (O:C) (C:C)	4.0	2957	(066:O) (6)		7693
(N ₃ 5) (6)	4.2	6862		3.8	2994			7696
(N ₃ 5) (6) ₂	4.1	6884	(6) ₂ (O:C) (C:C)	4.2	3058			7697
(N ₃ 65)	3.8	6949		4.0	3071		4.7	7732
(N ₃ 6 ₂ 5)	4.6	7012	(6) (O:C)	4.1	3217	(0665)	4.3	7747
(N ₄ 65)	4.1	7109	_O	4.1	3250		4.3	7748
(N ₄ 65:O)	4.0	7181	(6) (O:C) (C:C) ₂	4.2	3367	(O:0665:O)	4.7	7762
	4.0	7189	_O			(ON5) (O:C)	3.7	7788

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	3.7	7789		3.8	2295	(665:665)	5.1	4601
(S5)	3.7	7967		3.9	2298		5.2	4602
(S665)	4.4	8138	(6) (N:N:N)		2409	(6 ₃)	4.7	4621
(SN5) (O:C) O	4.0	8187	(6) ₂ (N:C)	4.1	2504			4678
(SN65)		8251	(6) (O:C)	4.0	2649	(6 ₃) (O:C) (C:C)	4.7	4702
				4.0	2651	(O:6 ₃ :O)	4.5	4798
				4.0	2687	(6 ₄)	4.8	4978
				4.1	2689	(O:6 ₄ :O)	4.5	5054
$\lambda_{\max.}$: 250-250.5m μ				4.1	2693	(7665)	4.4	5056
				4.2	2707	(7665) (O:N) O	4.3	5057
(C:C)	4.6	121			2722			
	4.3	134	(6) (O:C) ₂	4.1	2854	(6 ₅ :O)	4.7	5101
(N:C)	4.1	347	(6) ₂ (O:C)	4.1	2872	(6 ₅ 5 ₂)	4.8	5138
(N:C) (C:C)		437		4.1	2885	(N6)	3.8	5272
(N:C) (C:C) ₂	4.2	504		3.9	2893	(N6:O)	4.0	5547
(N:C) (C:C)	0.5	572		3.9	2894	(N65) (O:C)	4.4	5577
(O:C) (C:C)	4.5	705		4.1	2901	(N65) (O:66:O)	4.3	5590
		728	(6) ₂ (O:C) ₂	4.3	2931	(N66)	4.7	5714
	4.3	729	(6) ₂ (O:C) (C:C)	3.9	3068	(N66) (O:N) O		5813
	4.2	738		4.0	3069		4.4	5815
	4.2	767		4.0	3074	(N66) (6)	4.5	5826
(O:C) (C:C) ₂	4.1	782	(6) (O:C) O	3.4	3188	(N66:O) (O:C) O	4.4	5907
(O:C) (C:C) ₅	3.9	864		3.7	3295			
(O:C) (N:N:C)	3.9	973	(6) (O:C) ₂ (O:C) O	3.9	3408	(N665)	4.4	5946
(O:C) ₂ O	1.8	1011	(6) (O:C) (O:C) (C:C) O	4.1	3422	(N6 ₃)	5.0	5965
(O:C) O	2.0	1016					5.2	5970
(O:C) Br	2.0	1237	(6) (O:N) O	4.0	3424	(N6 ₄)	4.6	6062
(O:N) O	4.0	1283	(6) (O:N) ₂ O	4.1	3619	(N ₂ 5) (6) ₂	4.4	6079
(O:N) (C:C) O	3.8	1295	(6) (O:N) (C:C) O		3772	(N ₂ 5) (6) (O:C) N	4.3	6084
(6)	3.6	1539	(N:6:C) (6) ₃	4.0	3943	(O:N ₂ 5:C)	4.0	6102
	4.3	1624	(O:6:O)	4.3	3960	(N ₂ 6)	2.8	6131
	4.1	1645		4.3	3962		4.2	6170
	3.7	1704		4.1	3963		3.5	6203
		1819	(66) ₂	4.8	4223		4.1	6227
	4.0	1844	(66) (O:C)	4.6	4279		4.1	6275
(6) ₂	4.2	1870		4.5	4280	(N ₂ 6) (6)	4.4	6278
	4.3	1895	(66) (O:C) (C:C)	4.2	4286	(N ₂ 6:O) (6)	4.1	6279
(6) (C:C)	4.2	1987	(66) (6)	4.7	4355	(N ₂ 65)	4.1	6283
	4.2	1988		4.7	4356	(N ₂ 66:O)	4.2	6336
	3.9	2016	(66) (6) (N:N)	4.2	4407	(N ₂ 75)	4.0	6382
	4.0	2018	(O:66:O)	4.4	4454	(N ₂ 63)	4.0	6514
	4.1	2023		4.3	4463		3.6	6631
	4.1	2040		4.3	4470			6722
(6) ₂ (C:C)	4.0	2061		4.2	4476	(N ₂ 6 ₃) (O:C) N	4.6	6762
	4.1	2062		4.4	4480		4.2	6799
	4.3	2063		4.3	4482	(N ₃ 6)	4.3	6809
	4.2	2091		4.1	4488	(N ₃ 65) (O:N) O		6823
(6) ₂ (N:N)	3.9	2292		4.3	4492		3.5	6903
	3.9	2292	(O:66:N:N)	4.3	4526	(N ₄ 65)	4.1	6906
							4.2	6989
							4.1	6990
							3.5	7094

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₄ 65:O)	4.0	7187			2895	(O66:O) (6)		7710
	4.1	7202	(6) (O:C)	3.7	3144		4.3	7741
	3.9	7220	N			(O6 ₃ :O)	4.9	7769
	4.0	7223	(6) (O:C)	3.9	3197	(S5)	3.9	7969
	4.0	7226	O	4.1	3211	(S5) ₃	4.0	7980
	3.8	7234		4.1	3241		4.0	7981
	4.0	7244	(6) (O:C) ₂	3.6	3318		4.0	7982
O: (O:N ₄ 66:O)	3.9	7344	O			(S66:O) (O:C)	4.3	8132
(N ₅ 65)	3.8	7379	(6) (O:N)	4.0	3513	O		
(O66:O) (6)		7707	O	4.0	3579	(SN65) (6)	3.7	8285
	4.4	7737		3.8	3623	(SN ₂ 665)	4.4	8396
(O6 ₃ :O)	4.3	7773		3.6	3626		4.4	8398
(O6 ₃ :O) (O:C)	4.8	7776	(6) (O:C) (C:C)		3769			
O			O			$\lambda_{\max.}$: 252-252.5 μ		
(ON66:O)	3.9	7938	(O:6:O)	4.3	3986			
(S5) ₄	4.2	7984	(7:O)	4.5	4051	(C:C) (C:C) ₂	4.8	264
(SN5)	3.6	8161	(66) (O:C)	4.7	4269	(C:C) (C:C) ₄	4.3	273
			(66) (6) (O:C)	4.6	4427	(N:C)	4.1	341
			(O:66:O)	4.4	4452	(N:C) (C:C)	4.3	425
				4.3	4455	(O:C) (C:C)	3.8	695
$\lambda_{\max.}$: 251-251.5 μ				4.3	4461		4.2	737
(N:C) (C:C)	4.2	394		4.3	4462	(O:C) ₂ (C:C)	4.0	907
(N:C) (C:C) ₂		480		4.3	4464	(O:C) (C:C)	3.9	1062
(O:C) (C:C) (C:C)	3.9	952	(6) ₃	5.1	4647	O		
(O:C) (C:C) (C:C) ₂	3.5	954	(6) ₃ (O:N)	5.1	4708	(O:C) ₂ (C:C) ₂	3.6	1132
(O:C) (O:C) (N:C)	4.0	1217	O			O		
O			(O:6 ₃ :O)	4.7	4733	(O:C) (N:C)	4.1	1159
(O:C)	3.9	1232		4.5	4795	O		
S				4.5	4807	(6)	2.8	1339
(O:N) (C:C)	3.9	1291			4830			1368
O			(N5)	4.0	5200		4.2	1498
(S:C)	3.9	1310	(N6)	3.3	5239		4.2	1663
(6)	2.9	1392		3.3	5254		4.2	1687
	4.1	1412	(N6:O)	3.6	5536	(6) ₂	4.4	1938
		1419	(N66:O) (6)	4.5	5912	(6) (C:C)	4.0	2007
	3.5	1517	(N6 ₃ :O)	4.7	6045		4.1	2021
		1621	(N6 ₄)	4.8	6053			2028
	3.6	1705	(N ₂ 6)	3.1	6139			2034
(6) ₂	4.3	1856		3.9	6142		4.0	2042
	3.9	1899		3.6	6151	(6) ₂ (N:N)	3.9	2248
(6) ₃	4.6	1958		4.2	6274	(6) (O:C)		2663
(6) ₄	4.8	1966		4.2	6295		3.9	2667
(6) (C:C)		1996	(N ₂ 6) (6)	4.2	6374		4.1	2695
		2004		4.2	6381			2809
(6) ₂ (C:C)	4.3	2096	(N ₂ 65)	3.8	6644			2810
(6) ₂ (N:N)	3.9	2294	(N ₂ 66:O)	3.9	6724		4.2	2811
(6) (N:C) (C:C)	4.0	2636	(N ₃ 5) (6) ₂	4.4	6886		4.3	2831
(6) (O:C)		2657	(N ₄ 66:O)	4.3	7319	(6) ₂ (O:C)	4.0	2902
	4.0	2720	(N ₅ 65)	3.9	7378		4.1	2910
	3.9	2785	(O5) (O:C) ₂	3.4	7473	(6) (O:C) (C:C)	4.2	2946
(6) ₂ (O:C)	4.0	2876	O			(6) ₂ (O:C) (C:C)		3076
	4.0	2878	(O:O65:C) (6)	4.1	7635	(6) (O:C)	4.1	3196
	4.0	2891		4.1	7639	O		3231

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.3	3243		4.1	7231		4.0	2829
(6) (O:N)	4.1	3249	(O:N ₄ 65:0)	4.0	7304	(6) (O:C) ₂	4.7	2850
0	4.0	3480	(N ₅ 65)	4.1	7377	(6) ₂ (O:C)	4.3	2857
	3.7	3532	(O5)	0.0	7400		4.2	2870
	4.3	3614		4.2	7410	(6) (O:C) (C:C)	4.0	3352
(6) (O:N) ₂	3.8	3708	(O66:O) (6)		7708	0		
0			(O665)		7751	(6) (O:N) ₂	4.0	3690
(6) ₂ (O:N) ₄		3762	(S5)	3.9	7971	0		
0				4.0	7974	(O:6:O)	4.2	3964
(6) ₃ (O:N) (O:C) (C:C)	4.2	3879	(S65) (N:C)	4.1	8109		4.3	3968
0	4.3	3881	(S6 ₃ 5)	4.7	8157	(66) (O:C)	4.5	4260
(O:6:O)	4.4	3958	(SN65)	3.8	8249		4.8	4270
(66) (6) (O:C)	4.6	4433		3.9	8250	(66) (O:N)	5.0	4344
(O:66:O) (C:C)	4.3	4518	(SN ₂ 5)	3.8	8385	(66) ₂ (6) ₂ (N:C) ₂	4.8	4425
(O:66:N:N)	4.6	4525				(66) (6) (O:C)	4.6	4426
(6 ₃)	4.8	4622				(O:66:O)	4.4	4460
	5.3	4623	$\lambda_{\max.}: 253-253.5\text{m}\mu$				4.4	4468
	4.8	4627	none	2.6	27	(6 ₃)	4.3	4490
	4.8	4628	(C:C) (C:C) ₂	4.2	258		5.3	4624
	4.7	4644	(N:C) ₂	4.2	378		4.9	4626
(6 ₃) (C:C)	4.8	4695	(N:C) (C:C)	4.3	447		5.2	4629
(6 ₃) ₄ (C:C)	5.3	4697	(O:C) (C:C)	4.0	701		4.8	4638
(O:6 ₃ :O)	4.7	4732		4.2	707		4.8	4640
	4.7	4734	(O:C) (C:C)	4.0	986	(6 ₃) (6)	5.4	4664
	4.7	4736	N			(6 ₃) (6) (O:C)	5.0	4719
	4.5	4788	(O:C) (C:C)	4.1	1036	N	4.9	4726
	4.3	4819	0					
	4.3	4820	(6)	3.9	1336	(O:6 ₃ :O)	4.2	4799
(6 ₅)	4.6	5075		3.9	1422		4.6	4833
(N6) (C:C)	4.1	5406		2.0	1453	(6 ₄ :O)	4.3	5052
(N65)	4.3	5560		4.2	1454	(6 ₄ 5 ₂)	4.6	5106
	3.9	5572		4.1	1516	(N5) (6)	3.8	5223
(N65) (O:66:O)	4.2	5588		4.2	1762	(N6)	3.7	5255
(N66)	4.4	5681	(6) ₂	4.2	1860	(N6) (C:C)	4.1	5397
	4.3	5729		4.1	1916	(N66)	4.3	5798
	4.4	5738	(6) ₉	3.9	1916		4.2	5801
	4.2	5754	(6) ₁₀	5.3	1977	(N66) (O:C) (N:N:N)	4.3	5802
	4.3	5758	(6) ₁₁	5.3	1978	(N66) (O:N)	4.4	5811
(N66:O)	4.4	5899	(6) ₁₂	5.3	1979	(N66:O) 0	4.6	5820
(N6 ₃)	5.2	5967	(6) ₁₃	5.4	1980		4.3	5897
	4.8	6006	(6) ₁₄	5.4	1981	(N6 ₃)	4.9	5964
(N6 ₃ 5)	4.6	6047	(6) (C:C)	5.5	1982		5.1	5971
(N ₂ 6) (6)	4.4	6378		4.1	1995	(N ₂ 6)	4.2	6162
(N ₂ 6:O)		6491			1997			6183
(N ₂ 66) (O:N)	4.2	6698	(6) (N:C)	3.9	2025		4.1	6229
0				4.1	2430		4.2	6277
				4.1	2486	(N ₂ 6) (O:C)	3.3	6307
(N ₂ 6 ₃)	4.6	6811	(6) ₂ (N:C)	4.0	2502	0	3.5	6371
(N ₂ 6 ₄)	4.5	6845	(6) ₄ (N:C) ₂	4.5	2576			
(N ₃ 5) (6) ₂	4.0	6888	(6) (O:C)	4.1	2665	(N ₂ 6:O)	3.7	6399
(N ₄ 5)	4.4	7022		4.1	2731			6492
(N ₄ 65)	4.0	7127		3.9	2735			6493
(N ₄ 65:O)	4.1	7211		4.3	2816		3.9	6494
						(N ₂ 65)	3.6	6630

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₂ 66)	4.5	6683		4.3	2038		4.0	6224
(N ₂ 66:O)	4.3	6739	(6) ₂ (N:N)	4.1	2193		3.7	6308
(N ₂ 6 ₃)	4.7	6798	(6)(N:N)	4.1	2396		3.6	6319
	4.4	6819	O				3.7	6320
(N ₃ 5)(6) ₂	4.3	6887	(6) ₂ (N:C)	4.0	2519	(N ₂ 6)(6)	3.8	6384
(N ₃ 6)	4.4	6926	(6) ₂ (N:C) ₂	4.5	2559	(N ₂ 6:O)	4.2	6500
(N ₃ 65)	3.7	6950	(6)(O:C)	3.9	2659		3.9	6513
	4.1	7157		4.2	2820	(O:N ₂ 6:O)		6590
(N ₄ 65:O)	4.1	7228	(6) ₂ (O:C)	4.3	2858	(N ₂ 66:O)(O:C)	4.3	6742
(O:N ₄ 66:O)	3.9	7333		4.3	2861	O		
(O5)(6) ₄	4.3	7541	(6) ₂ (O:C) ₂	4.3	2925	(N ₂ 6 ₄)	4.8	6844
(O65)	4.1	7625	(6)(O:C)(C:C)	4.2	2949	(N ₃ 6)	3.5	6918
	4.1	7626	(6) ₂ (O:C)(C:C)	4.2	3064	(N ₃ 6)(O:C)	4.3	6940
	4.1	7627		4.0	3072	N		
(O6 ₃ :O)	4.6	7770	(6)(O:C)(C:C)	4.0	3152	(N ₃ 65)	3.8	6948
(SN5)	3.7	8162	N			(N ₄ 5:N)	3.4	7048
	3.9	8164	(6)(O:C)	4.2	3244		3.4	7049
	3.4	8165	O	4.0	3255	(N ₄ 65)	4.0	7126
(SN ₂ 5)	3.9	8382		3.9	3270		4.3	7151
			(6)(O:N)(C:C)		3791	(N ₄ 65:O)	4.1	7229
			O			(O5)(O:C)	4.0	7471
$\lambda_{\max.}$: 254-254.5m μ			(N:6:N:N)	3.8	3929	O		
			(O:6:O)	4.1	3997	(O:O65:C)(6)	4.0	7637
none	2.6	37	(7:O)	4.6	4053	(O66:O)(6)	4.4	7726
(C:C) ₃ (C:C) ₂	4.8	287	(66) ₂	5.0	4222		4.8	7728
(N:C)	1.1	321	(66)(O:N)	5.2	4342		4.4	7740
(O:C) ₃	3.6	633	(O:66:O)	4.5	4459	(O:ON5:C)(6) ₂	4.1	7831
(O:C)(C:C)	4.5	650		4.1	4491			
	4.0	693	(O:66:O)(C:C)	4.3	4519			
	3.9	709	(6 ₃)	4.7	4637			
	4.3	722		5.2	4646			
(O:C)(C:C) ₂	4.2	787		4.8	4688			
(O:C)(C:C)	4.1	1069	(6 ₃)(O:C)	4.8	4700	none	2.6	13
O			(6 ₃)(O:C)(C:C)	5.0	4703		2.7	40
(O:C)(C:C) ₂	4.4	1078	(O:6 ₃ :O)	4.5	4730	(C:C)	3.8	75
O				4.5	4793	(N:C)	4.1	348
(O:C)(N:C)	4.1	1158		4.4	4801		4.0	356
O				4.3	4805		4.0	358
(6)	2.2	1399	(6 ₄)(C:C)	4.6	5013	(N:C)(C:C)	4.2	421
	2.4	1464	(6 ₅)	4.7	5082		4.3	436
	4.5	1493	(N6)	3.6	5307		4.2	446
		1714		3.1	5332	(O:C)(C:C)	3.8	698
	4.0	1641		3.4	5339		3.8	700
	4.0	1648	(N65)(O:C)	4.3	5578		4.3	724
	4.5	1676	(N66)	4.2	5730	(O:C)(C:C) ₂	4.2	786
	3.0	1708		4.2	5739	(O:C)(C:C) ₅	3.6	865
	3.8	1813	(N66)(6)	4.6	5824	(O:C) ₂ (C:C)	3.7	911
(6) ₂	4.1	1864		4.5	5825	(O:C)(C:C)(C:C)	4.1	951
	4.3	1942	(N6 ₃)	5.1	5976	(O:C)(N:C) ₂	3.8	968
(6) ₁₅	5.5	1983		5.1	5977	(O:C) ₂ (C:C)		1120
(6) ₁₆	5.5	1984		5.0	6012	O		
(6)(C:C)	4.3	1990		5.0	6013	(O:C)	3.6	1229
		2008	(N ₂ 5)(O:C)	3.2	6071	S	3.9	1445
	4.0	2028	(N ₂ 6)	4.2	6165		2.3	1455
							4.2	1694

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6)		1740		4.4	4655	(N ₃ 65) (O:N)	4.1	6984
(6) ₂	4.3	1865		4.7	4686	$\begin{array}{c} \text{O} \\ \\ (\text{N}_4 65:\text{O}) \end{array}$	4.1	7190
	4.1	1901		4.9	4689	(N ₄ 66:O)		7320
		1945	(6 ₃) (C:C)	5.1	4694	(O:N ₄ 66:O)	4.3	7331
(6) (C:C)	4.1	2007	(6 ₃) (6)	5.1	4711		4.4	7332
(6) ₂ (C:C) ₂	4.6	2138	(6 ₃) (66)	4.9	4728		4.1	7334
(6) ₂ (C:C) ₃	4.9	2139	(6 ₃) (66) ₂	4.8	4729		4.1	7458
(6) ₂ (N:N)	4.1	2249	(O:6 ₃ :O)		4737	(O5) (O:C)		
	4.1	2255		4.2	4806	$\begin{array}{c} \text{N} \\ \\ (\text{O}: \text{O5}:\text{C}) (\text{6})_6 \end{array}$	4.3	7560
	4.1	2261		4.4	4808		4.2	7561
(6) (N:C)	5.0	2422		4.3	4818		4.2	7562
	4.2	2431		4.2	4821		4.0	7602
	4.4	2481	(O:6 ₃ :O) (N:C)	4.7	4839	(O6:O)	3.9	7616
	4.1	2487	(O:6 ₃ :O) (O:N)	4.6	4840	(O6:O) (O:C)		
(6) (O:C)	4.0	2656	$\begin{array}{c} \text{O} \\ \\ (\text{6}_5 5) \end{array}$	4.8	5107	(O66:O) (6)	4.4	7736
	4.0	2721	(N5) (6) (O:C)	4.3	5234	(S5) (O:C) ₂	3.8	8020
(6) (O:C) ₂	4.0	2839	$\begin{array}{c} \text{O} \\ \\ (\text{N6}) \end{array}$	3.3	5256	(S5) (6) (N:C)	4.1	8045
	4.0	2845		3.3	5258	(S5) (6) (O:C)		8049
	4.0	2853		4.1	5330	(S5) (N ₄ 5)	4.0	8055
(6) ₂ (O:C)	4.0	2892		4.2	5360	(SN5)	4.3	8174
(6) ₂ (O:C) ₂	3.9	2921		4.1	5548		4.3	8175
	4.2	2922		4.1	5549	(SN5) (O:C)	3.8	8184
(6) ₄ (O:C) ₂	4.3	2940	(N6:O)	4.4	5763	$\begin{array}{c} \text{O} \\ \\ (\text{SN65}) (\text{6}) (\text{O:N}) \end{array}$		8288
(6) (O:C) ₂ (C:C)	4.4	3041		4.2	5797		4.8	8397
(6) (O:C)	4.1	3212	(N66)	4.5	5803	(SN ₂ 665)	4.3	8440
$\begin{array}{c} \text{O} \\ \\ (\text{6}) (\text{O:C}) (\text{C:C}) \end{array}$	4.2	3222		4.2	5843	(SeN ₂ 65) (6)		
		3228		4.4	5845			
(6) (O:C) (C:C)		3387	(N66) (6) (O:N)	4.4	5900			
	4.0	3488	$\begin{array}{c} \text{O} \\ \\ (\text{N66}) (\text{6}) (\text{O:N})_2 \end{array}$	4.5	5958			
(6) (O:N)	4.0	3520						
	3.9	3624	(N66:O)					
	3.5	3642	(N665) (O:N) (O:N)					
	3.4	3662	$\begin{array}{c} \text{O} \\ \\ (\text{N6}_3) \end{array}$					
(6) (O:N) ₃	4.0	3736		4.8	6002	(C:C) ₂	3.9	95
				5.0	6008	(N:C)	4.1	337
(6) ₂ (O:N)	4.3	3740	(N ₂ 5) (6) ₃	4.5	6081		4.1	340
$\begin{array}{c} \text{O} \\ \\ (\text{6}) (\text{O:N}) (\text{C:C}) \end{array}$		3782	(N ₂ 5) (6) (O:C)	4.1	6083	(N:C) (C:C)	4.0	395
			(N ₂ 5:O) (6)	4.0	6095		4.3	400
(6) (O:N) (O:C)	4.1	3871	(N ₂ 6)	4.2	6276		4.3	401
			(N ₂ 65)	3.6	6635		4.3	406
(6) (O:N) (O:C)	3.9	3885	(N ₂ 66) (O:N)	4.2	6693		4.4	426
$\begin{array}{c} \text{O} \\ \\ (\text{6}) (\text{O:N}) (\text{O:C}) \end{array}$			$\begin{array}{c} \text{O} \\ \\ (\text{N}_2 75) (\text{6}) \end{array}$	4.2	6694		4.2	435
				4.6	6764		4.3	438
(6) ₂ (5:O)	4.3	3913	(N ₂ 665)	4.4	6786	(N:C) (C:C) ₂	4.1	479
(N:6:N:N)	3.7	3930	(N ₂ 63)	4.2	6808		4.3	505
	3.7	3935	(N ₂ 64)	4.6	6849	(N:C) (C:C) ₃	4.3	512
(O:6:O)	4.3	3960	(N ₂ 64:O)	4.6	6851	(N:C) (C:C) ₃	4.2	578
	4.4	3961	(N ₃ 5) (6)	4.2	6878	(O:C) (C:C)	4.2	736
(66) ₂	4.8	4224	(N ₃ 6)	4.3	6925		3.9	766
(66) ₂ (N:C) ₂	4.9	4253	(N ₃ 6) (C:C)	4.4	6939	(O:C) (N:C)	4.1	966
(66) (O:N)	4.9	4340				(O:C) (C:C)	3.5	987
(665:C)	4.6	4603	O:					
(6 ₃)	4.8	4641	(O:N ₃ 6:O) (6) ₃	2.9	6947	(O:C) (N:C) (C:C) ₂	4.2	1160

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6)	2.4	1323		4.8	4656	(O:O65:C) (6)	4.0	7638
		1338		4.6	4662	(O66:O) (6)	4.5	7718
	4.1	1394		4.8	4690		4.3	7735
	4.6	1408		4.7	4692		4.3	7739
	2.2	1413	(6 ₃) (N:C)	5.2	4698	(O6 ₃ :O)	4.2	7768
	4.1	1540	(6 ₃) (6)	5.3	4710	(ON5) (O:C)	3.9	7790
	4.2	1815		4.9	4720		3.9	7791
		1834	(6 ₃) (66)	4.7	4727	(O:ON5:C) (6) ₂	4.1	7811
	2.9	1837	(O:6 ₃ :O)	4.5	4804	(S5) (O:C)	4.0	7995
		1841		4.7	4834		3.6	8000
(6) (C:C)	4.0	2048	(6 ₃ 5:N)	3.7	4893	(S5) (O:C) ₂	4.0	8019
(6) ₂ (N:N)	3.8	2254	(6 ₄)	4.6	4949			
(6) (N:C)	4.2	2456	(6 ₄ 5)	4.9	5061	(S65) (6) (N:C)	4.3	8112
	4.0	2495		4.6	5062			
(6) (O:C)	4.2	2698	(6 ₅) (O:C)	4.6	5093			
	4.3	2815	(6 ₅ 5)	4.8	5108			
	4.0	2819	(6 ₆)	4.7	5118			
(6) ₂ (O:C)	4.2	2862	(N5) (6) (O:C)	3.4	5241	λ _{max.} : 257-257.5mμ		
	4.1	2879		3.7	5242	none	2.6	38
	4.2	2888	(N6)	3.3	5250		2.4	39
		2905		3.3	5253	(C:C) ₃	4.9	156
	4.4	2907		3.3	5254	(N:C) (C:C)	4.2	422
(6) (O:C)	4.2	3218		4.2	5337	(N:C) (C:C) ₂	4.3	496
			(O:N65:C)	4.3	5608	(O:C) ₂ (C:C) ₂	4.5	1126
(6) (O:C) (C:C)	3.0	3341	(N66:O)	4.1	5898			
				4.4	5901	(S:C)	4.1	1309
(6) ₂ (O:C) (O:C)		3410	(N6 ₃)	4.9	6014	(6)	2.2	1326
			(N6 ₄)	4.8	6054		3.2	1330
(6) (O:C)		3448	(N ₂ 5) (6) ₂	4.6	6074		2.3	1332
			(N ₂ 6)	4.2	6172			1337
(6) (O:N)	3.9	3483		4.2	6231		2.8	1339
	3.8	3547		4.2	6323		4.0	1388
	3.7	3559	(N ₂ 6) (6)	3.8	6323		4.3	1689
	4.0	3609	(N ₂ 6:O)	4.1	6376		4.3	1690
	3.9	3628		3.6	6496		3.9	1754
(6) (O:N) ₃	4.0	3723		4.3	6502	(6) ₂	3.9	1917
			(O:N ₂ 6:O)	4.1	6505		4.3	1943
(7:O)	4.5	4050	(N ₂ 66:O)	4.0	6579	(6) (C:C)	4.2	2043
(7:O) (6)	4.3	4078	(N ₃ 5) (6) ₃	4.3	6732		4.3	2046
(66) (O:C)	4.4	4274	(N ₃ 6)	3.9	6893	(6) ₂ (C:C)	4.1	2069
	4.4	4276		2.9	6901	(6) (N:C)	4.1	2480
(66) (O:C) ₂	4.7	4311		2.6	6919	(6) ₂ (O:C)	4.4	2867
				4.3	6927		4.4	2897
(66) (O:C) (C:C)	4.5	4317	(N ₄ 5)	3.5	6937	(6) ₂ (O:C) ₂	4.3	2920
				3.3	7028		4.3	2923
(66) (O:N)	4.6	4329	(N ₄ 65:O)	3.3	7029	(6) ₂ (O:C) (C:C) ₃	4.2	3102
	5.2	4341	(O5) (N:C)	4.0	7232	(6) (O:C)		3135
	4.9	4345	(O5) ₂ (O:C) (C:C)	4.1	7414			
(O:66:O)	4.4	4467	(O5) (O:C)	3.6	7452	(6) (O:N)	3.8	3482
	4.5	4494		4.1	7472			
(665:O)	4.9	4612	(O:O5:C) (6) ₂			(6) (O:N) ₂	4.0	3676
(6 ₃)	4.7	4625		4.2	7556		3.7	3709
	5.3	4630		4.3	7557	(6) ₂ (O:N)	4.2	3746
	4.7	4639	(O65)	4.3	7558			
				4.1	7629			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂ (O:N) ₂ O	4.1	3754	(N ₂ 6:O)	4.4	6377	(O:C)(C:C) ₂ N	4.5	988
(6)(O:N)(C:C) O	3.9	3783		3.6	6439	(O:C) ₂ (C:C) O	2.8	1108
(6) ₃ (O:N)(O:C)(C:C) O	4.2	3882	(O:N ₂ 6:O)	4.0	6578	(O:C)(O:C)(C:C) ₂ O N	4.5	1218
(7:O)	4.5	4052		4.4	6591	(O:5:O) O	4.3	1321
(7:O)(6)	4.4	4066		2.7	6592	(6)	2.6	1331
(66)(O:C) ₂ O	4.8	4312		4.0	6593			1333
(66)(O:N)	3.9	4328		4.5	6594		2.5	1385
	4.7	4343	(N ₂ 65)(O:N) O	4.2	6653			1390
(66)(6)(O:C)	4.4	4432	(N ₂ 6 ₃)(O:C) N		6824		4.2	1414
(665:O)	5.0	4610	(N ₃ 5)(6)		6876		4.2	1441
	5.0	4611	(N ₃ 5)(N ₆)	3.9	6897		4.2	1463
(6 ₃)	4.8	4631	(N ₃ 6)	4.3	6924		2.4	1527
	4.8	4633	(N ₃ 6)(O:C) O	4.3	6942			1839
	4.8	4643				(6) ₂	4.4	1939
	4.6	4645	(N ₃ 65)	3.5	6975	(6)(C:C)	4.3	1991
(6 ₃)(C:C)	4.7	4693	(N ₄ 65)	3.8	7063		4.5	2041
(6 ₃)(6)	4.7	4717		4.1	7159		4.0	2049
(O:6 ₃ :O)(N:C)	4.6	4838	(N ₄ 65)(6)	4.4	7174	(6)(N:C)	3.9	2494
(64)	5.2	4901	(N ₄ 65:O)	4.0	7235	(6) ₂ (N:C)	4.1	2505
(65)	5.0	5078		4.0	7245		4.2	2506
(65)(N:C:O)	4.7	5096	(O:N ₄ 65:O)	4.1	7255	(6) ₂ (N:C) ₂		2553
(65:O)	4.5	5102	(O:N ₄ 66:O)(O:C) O	4.1	7347	(6)(N:C)(C:C)	4.0	2632
(N5)(6)(O:C) O	3.4	5238					4.2	2633
	3.4	5243				(6)(O:C)	4.1	2728
	3.4	5243				(6) ₂ (O:C)	4.2	2864
(N6)	3.5	5331	(O6:O)	3.9	7594	(6) ₃ (O:C) ₂	4.3	2934
	3.5	5347	(O66:O)(6)	4.3	7738	(6) ₄ (O:C) ₃	4.3	2942
(N6)(O:C) O		5434		4.5	7744	(6) ₂ (O:C) ₂ (C:C)	4.3	3121
(N6)(6)	4.2	5441	(S5)(6) ₂		8041	(6)(O:C) O		3257
(N6:O)(6)	3.6	5551	(SN5)		8172			
(N66)	4.5	5685		4.3	8176	(6)(O:C)(O:C)(C:C)	4.1	3417
	4.5	5710	(SN5:O)(6) ₂ (C:C)	4.3	8226			
	4.3	5800				(6)(O:N) O	4.1	3491
(N66)(O:N) O	4.4	5818	λ _{max} , 258-258.5mμ				3.7	3544
							3.5	3583
(N66:O)(6)	4.6	5909	(C:C) ₂	4.4	148		3.5	3633
(N6 ₃)	5.2	5984	(C:C)(C:C) ₂	4.2	259	(6) ₂ (O:N) O		3751
	4.8	6016		4.2	261			
	4.8	6017	(N:C)	4.4	332	(6) ₂ (O:N)(N:N) O	4.0	3822
(N ₂ 6)	4.3	6175		4.1	338			
	3.8	6257		4.1	349	(6)(O:N)(O:C) O	4.2	3863
	4.3	6294	(N:C)(C:C)		415		4.2	3873
	4.1	6296		4.0	453	(6)(O:N)(O:C) O O	4.0	3886
	3.6	6303	(N:C)(C:C) ₂	4.2	478			
	3.8	6324	(N:C)(C:C) ₃	4.3	513	(O:6:O)	4.3	3967
	3.8	6325	(O:C)(C:C) ₂	4.5	789		4.3	3971
(N ₂ 6)(O:C) O	3.6	6370	(O:C)(C:C) ₃	3.9	833		4.3	3981
			(O:C) ₂ (C:C)	4.0	909		4.3	3985
(N ₂ 6)(6)	4.1	6375		4.2	912		4.1	3996

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(7:0)	4.4	4054	(ON65) (6) (O:N)	4.1	7923	(6) (O:N)	4.0	3479
	4.9	4059	O			O	3.8	3643
(66) (O:C)	4.6	4273	(S5) (O:C) ₂	4.0	8017	(6) (O:N) (O:C)	4.0	3889
(66) (O:N)	4.9	4327	O			O		
(6 ₃)	4.7	4632	(S5) (6)	4.0	8033	(N:6:N:N)	3.9	3931
	4.8	4635	(SN5)		8171		3.7	3932
	4.8	4636		3.8	8178	(66) (C:C)	4.7	4239
	4.8	4642	(SN5:N)	3.9	8218	(66) (O:C)	4.3	4285
	4.8	4657	(SN5:O) (6) (C:C)	4.1	8225	(66) (O:N)	4.3	4333
(6 ₃) (O:C)	4.5	4705	(SN65) (6)	3.7	8285	(66) (6) ₂	4.7	4369
O			(SN665)	4.6	8352	(66) (6) (N:N)	4.2	4417
(O:6 ₃ :O) (O:N)	4.6	4841				O		
(6 ₆)	4.6	5127	$\lambda_{\text{max.}} : 259-259.5\text{m}\mu$			(75)	4.4	4529
(N6)	3.5	5345				(665:O) (O:C)	4.7	4615
(N6) ₂	4.0	5387	none	3.2	40	N		
(N6) (O:C)	3.2	5410	(N:C)	4.3	309	(665:O) (O:C)	4.7	4616
(N6:O) (6)	3.6	5550	(N:C) (C:C)	4.3	434	O	4.6	4617
(N66)	4.3	5688		4.4	450		4.8	4618
(N6 ₃)	5.0	5968		4.2	459	(6 ₃)	4.8	4634
	4.8	5988	(O:C) ₂	1.3	625		4.8	4650
	4.8	6011	(O:C) (C:C)	4.0	697	(6 ₃) (6) ₂	5.0	4721
(N ₂ 5) (6) ₂	4.4	6080		4.1	709	(6 ₃ 5)	4.6	4884
(N ₂ 6)		6184		4.4	723	(6 ₄)	4.5	4969
	3.9	6241		4.2	725		4.5	4970
	3.3	6298		3.8	768	(N5) (O:C)	3.7	5205
	3.4	6299	(O:C) (C:C) ₂	4.4	775	O		
	3.7	6304	(O:C)	1.8	977	(N6)	3.6	5314
	3.7	6322	N			(N6) (6) (N:N)	4.1	5481
(N ₂ 6) (6)	4.3	6380	(O:C) (C:C) ₂		1081	(N6:O)	3.8	5520
(N ₂ 6:O)	3.8	6434	O				3.8	5529
	4.0	6479	(6)	2.7	1342	(N66)	4.0	5691
(O:N ₂ 6:O)	3.9	6565		2.3	1349		4.0	5700
	3.9	6566			1354	(N66) (6) (O:C)		5840
	4.0	6577		3.0	1393	O		
(N ₂ 65)	3.6	6634		2.6	1436	(N6 ₃)	5.3	5978
(O:N ₂ 66:N)	4.2	6761		4.2	1462		4.9	5980
(N ₂ 665)	4.6	6776		3.3	1510		4.9	5992
(N ₂ 6 ₃ 5)	4.6	6840		3.8	1642	(N ₂ 6)	3.6	6201
(N ₃ 5) (6)	3.9	6877		4.3	1691	(N ₂ 6:O)	3.7	6420
(N ₃ 6)	3.6	6904			1733		3.8	6440
(N ₃ 6) (O:C)	4.3	6941	(6) ₂	4.4	1952		3.6	6547
O			(6) (C:C)	4.2	1992		4.3	6472
							3.7	6473
(N ₃ 6) (6)	4.2	6944		3.9	2013	(O:N ₂ 6:O)	3.8	6576
(N ₃ 65)	3.8	6957		4.3	2019	(N ₂ 66) (O:N)	4.3	6703
	3.7	6963		4.5	2052	O		
(N ₄ 5:N)	3.1	7050	(6) (N:N)	3.9	2147		4.6	6707
(N ₄ 65:O)	4.1	7183	(6) (O:C)	3.8	2717	(N ₂ 66) (6)	4.6	6833
	4.2	7208	(6) ₂ (O:C)	4.2	2860	(N ₂ 6 ₃ 5)	4.6	6833
(O:N ₄ 66:O)	3.9	7336	(6) ₂ (O:C) ₂	4.3	2911	(N ₃ 5) (6)	2.5	6875
(O5) (N:C)	4.3	7415	(6) (O:C) (C:C) ₅		3035	(N ₃ 65)	3.8	6952
(O5) (6) ₃	3.9	7529	(6) ₂ (O:C) (C:C) ₅		3044		3.8	6953
(O5) (6) ₄ (O:C) ₂	4.5	7547	(6) ₄ (O:C) ₄ (C:C)	4.6	3126	(N ₄ 66)		7309
			(6) (O:N)	3.6	3461	(O:N ₄ 66:O) (O:C)	3.9	7337
						O		

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₅ 65) (6)	4.1	7380	(6) (N:N) O	4.2	2400	(6 ₅) (O:C)	4.7	5094
(066:0) (6)	4.5	7719	(6) ₂ (N:C)	4.1	2503	(67)	5.0	5152
(06 ₃ 5)	4.9	7784	(6) (O:C) ₂	2.6	2840	(N6)		5244
(O:ON5:C) (6) ₂	4.2	7803	(6) ₂ (O:C)	4.1	2859		3.3	5259
	4.2	7805		4.3	2898		3.5	5265
	4.2	7812	(6) (O:C) ₂ (C:C)	4.5	3043		4.1	5285
	4.2	7814	(6) ₂ (O:C) (C:C) ₄	3.9	3111		3.6	5313
	4.2	7815	(6) ₂ (O:C) ₂ (C:C)	4.3	3122		4.2	5344
	4.1	7821	(6) (O:C) O	4.2	3237		3.8	5346
	4.1	7822		4.0	3254	(N6) (6) (N:N)	4.2	5482
	4.2	7829			3258	(N6:C) (6) ₂	4.4	5499
	4.2	7830		3.8	3273	(N6:O)	4.2	5508
(S5) (O:C)	4.0	7994	(6) (O:C) (O:C) (C:C)	4.1	3432		4.2	5509
(SN5)	3.8	8179	O				4.2	5510
(SN5) (6) ₂ (C:C)	4.1	8200	(6) (O:N) O	3.6	3587	(O:N65:C)	4.3	5609
				3.6	3627	(N66)	3.8	5673
				3.8	3668		4.5	5721
$\lambda_{\max.}$: 260-260.5m μ			(6) (O:N) ₂ O	3.9	3678	(N66) (6) (O:N) ₂ O	4.5	5759
				4.0	3680		4.5	5846
none	2.3	36	(6) (O:N) ₂ (C:C) O		3802	(N6 ₃)	4.7	5999
(C:C) ₅	5.5	239					4.8	6010
(C:C) (C:C) ₂	4.5	266	(6) ₂ (O:N) ₂ (N:C) ₂ O	4.3	3850		4.4	6015
	4.6	367				(N6 ₃) (6)	4.5	6033
(N:C) ₂		389	(6) (O:N) (O:C) O	4.3	3869	(N6 ₄)	4.8	6060
(N:C) (C:C)	4.2	404		4.2	3872	(N ₂ 6)	3.7	6137
	4.3	407	(O:6:O)	4.2	3966		3.8	6138
	4.2	408	(7:O)	4.5	4061		3.6	6179
	4.0	439	(7:O) (6)	4.4	4073		3.9	6185
	4.4	452	O: O:7:N	3.9	4095		3.4	6300
(N:C) (C:C) ₂	4.4	487	(66)	3.7	4160	(N ₂ 6:O)	4.3	6361
(O:C) N	2.0	981		3.7	4161		3.9	6425
(6)	2.8	1327		4.0	4169		4.1	6474
	2.2	1334	(66) (N:C)	4.4	4250		3.9	6475
	2.3	1340	(66) (O:C)	4.5	4275	(N ₂ 6:S)	4.1	6501
	2.4	1389		4.5	4281	(O:N ₂ 6:O)	4.1	6562
	2.5	1476	(66) ₂ (O:C) ₂ O	3.7	4314			6571
	2.5	1477					4.0	6573
		1579	(66) (O:C) (C:C) O	4.3	4324		4.1	6581
	2.6	1670				(S:N ₂ 6:O)	3.6	6585
	3.3	1707	(66) (O:N)	4.1	4331		4.0	6610
		1840		4.2	4332	(N ₂ 6 ₅) (O:N) O	4.3	6656
	4.2	1843	(66) (O:N) O	3.9	4347	(N ₂ 66) (O:N) O	4.2	6697
(6) ₂	4.3	1866					4.3	6702
	4.4	1885	(O:66:O)	4.4	4468	(N ₃ 65)	3.8	6951
	4.3	1887	(6 ₃)	5.2	4648		3.8	6965
	4.0	1907		4.8	4651		3.8	6966
(6) (C:C)	4.3	2022		4.8	4654		3.8	6970
	4.1	2030		4.8	4661	(N ₄ 5:N)	3.2	7051
	4.1	2031	(6 ₃) (C:C)	5.1	4696	(N ₄ 65)	3.8	7054
	4.0	2053	(6655) (6) ₂	4.7	4872		4.1	7073
(6) ₃ (N:N)	4.1	2359	(6 ₄) (O:N) O	4.7	5040		4.2	7116
							4.2	7117

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.2	7118		3.9	1925		4.1	6905
	4.2	7122		4.4	1935	(N ₃ 65)	3.9	6958
(N ₄ 65) (6)	4.1	7177	(6) (C:C)	4.0	2003	(N ₄ 65)	3.9	7058
(N ₄ 65:O)	4.3	7210		4.3	2020		4.0	7128
$\begin{smallmatrix} \text{O} \\ \\ (\text{O}:\text{N}_4\text{65}:\text{O}) \end{smallmatrix}$	4.0	7295	(6) (C:C) ₂	4.0	2057		4.1	7152
	4.0	7296	(6) ₂ (N:N)	3.9	2402	(N ₄ 65:O)	4.0	7188
$\begin{smallmatrix} \text{O} \\ \\ (\text{O}:\text{N}_4\text{66}:\text{O}) \end{smallmatrix}$	4.0	7343	$\begin{smallmatrix} \text{O} \\ \\ (6)_2(\text{N}:\text{C}) \end{smallmatrix}$			(N ₅ 65)	3.6	7371
	3.9	7344	(6) ₂ (N:C)	4.2	2521	(O66:O) (6)	4.4	7713
(O5) (C:C)	4.2	7411	(6) ₄ (N:C) ₂	4.4	2573	(O6 ₃ :O)	4.2	7772
(O5) (O:C) (C:C) ₃	3.7	7448	(6) (O:C)	3.9	2658	(O:ON5:C) (6) ₂	4.2	7819
(O5) (O:C) (C:C) ₅	3.9	7450	(6) ₂ (C:C) ₂	4.3	2928	(O:ON5:C) (6) ₂ (O:N) ₂		
(O5) (O:C)	4.4	7470	(6) (O:C)		3261	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	4.2	7893
$\begin{smallmatrix} \text{O} \\ \\ (O5) (O:N) (N:C) \end{smallmatrix}$	4.1	7498	(6) ₂ (O:C)		3326	(ON65) (O:N)	4.3	7907
	4.1	7501	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$		
(O5) (6) (O:C) (C:C)	3.9	7549	(6) (O:N) ₂	4.0	3683	(S5) (6)	4.1	8036
(O6:O) (O:C)	4.0	7611	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$		3685		3.6	8040
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	3.6	7619	(6) ₂ (O:N)	4.1	3743	(SN5) (O:C) ₂	3.9	8190
(O66:O) (6)	4.4	7734	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	3.8	3745	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$		
(O6 ₃ :O)	4.5	7774	(6) (O:N) ₂ (C:C)		3805	(SN5) (6) (C:C)	4.2	8199
(O6 ₃ :O) (O:C)	4.4	7775	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$					
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(6) (O:N) (O:C)	4.6	3867			
(O:ON5:C) (6) ₂	4.2	7817	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	4.4	3870			
(S665) (O:N)	4.3	8146	(6) ₂ (O:N) (O:C)	4.1	3877	$\lambda_{\text{max.}}: 262\text{--}262.5\text{m}\mu$		
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$					
(SN5)	4.2	8169	(66) (6) (C:C:C)	4.8	4375	none	2.8	34
(SN5) (O:C)	4.0	8185	(O:66:O)	4.3	4466		2.5	46
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$				4.3	4507	(C:C) ₂	3.9	123
(SN5:N)	4.2	8219	(75)	4.4	4537		3.6	124
$\begin{smallmatrix} \text{O} \\ \\ (\text{S}:\text{SN5}:\text{C}) (6) \end{smallmatrix}$	3.9	8237	(6 ₃)	4.4	4539	(C:C) ₃		177
				4.8	4653	(C:C) ₂ (C:C)		278
				5.3	4659	(N:C)	1.3	311
					4691	(N:C) (C:C) ₂	4.3	575
						(6)	2.9	1328
$\lambda_{\text{max.}}: 261\text{--}261.5\text{m}\mu$			(O:6 ₃ 5:O)	4.7	4900		3.3	1329
			(6 ₆)	5.2	5121		2.5	1357
none	2.8	42	(N5)	3.6	5199		2.5	1387
(C:C) ₂	4.4	130	(N6)	3.4	5246		4.2	1467
(N:C) (C:C) ₃		577		4.0	5276		4.0	1497
(O:C) (C:C)	3.9	710		4.3	5286		2.9	1530
	4.1	735	(N6) (O:C)	3.7	5417		2.9	1534
(O:C) (C:C) ₂	4.4	1079	$\begin{smallmatrix} \text{N} \\ \end{smallmatrix}$	3.5	5418			1564
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(N65) (6) (O:C)	4.2	5583			1580
(6)	2.5	1324	(N6 ₃)	4.9	5986		3.2	1620
	2.3	1325		5.0	5997		3.3	1659
		1492	(N ₂ 5:C) (6) ₄ (O:C) ₂	4.6	6092		2.7	1668
	4.0	1518	(N ₂ 6)	3.3	6347		4.2	1686
	2.8	1535		3.5	6348		2.9	1711
	2.6	1536	(N ₂ 6:O)	3.6	6411			1852
	2.3	1654		3.6	6413	(6) ₂	4.4	1946
		1674	(O:N ₂ 6:O)	4.0	6572	(6) (C:C)	4.3	2026
	2.9	1710	(N ₂ 66)	3.7	6680	(6) ₃ (N:N) ₂	4.2	2376
(6) ₂	4.2	1875	(N ₂ 6 ₃ 5 ₂)	4.5	6852	(6) ₆ (N:C) ₂	4.3	2581
	4.4	1896		4.5	6853	(6) (O:C)	4.2	2710
	4.3	1898	(N ₃ 6)	3.3	6902	(6) ₂ (O:C)	4.4	2863

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.4	2899	(N6) (O:C) ₂		5435	(O:C) (C:C) (C:C) ₃	4.0	1154
(6) ₂ (O:C) ₂	4.1	2926	_O			_O		
(6) ₂ (O:C) _N	4.3	3151	(O:N65:C) (O:C) _O	4.4	5612	(6)	3.3	1386
(6) (O:C) _O	3.8	3296	(N66)	3.6	5661		4.1	1495
	3.0	3301		3.4	5743		4.2	1499
(6) (O:C) (O:C) (C:C) _O	4.1	3418	(N66:O) (6)	4.4	5911		2.7	1522
			(N6 ₃)	4.8	5996		2.7	1525
	4.1	3435		4.8	5998		2.6	1526
(6) (O:N) _O	3.9	3509	(N6 ₄)	4.9	6052		3.2	1532
	3.7	3634	(N ₂ 5:C) (6) ₄ (O:C) ₂	4.7	6093		3.2	1542
(6) (O:N) (O:C) _O	4.1	3862	(N ₂ 6)	4.2	6169		2.8	1655
	4.2	3866		3.2	6318		2.6	1751
(6) ₂ (S:C)		3908		3.8	6325		2.3	1811
(N:6:C) (6) ₂	4.3	3938		4.6	6360	(6) ₂	4.3	1905
(O:6:C) (6) ₂	4.4	4010	(N ₂ 6:O)	3.6	6412			1918
(7:O)	4.3	4055		3.7	6423			1949
	4.4	4060		3.8	6480	(6) (C:C)	4.2	2032
(66) ₂ (N:N)	4.3	4246	(O:N ₂ 6:O)	3.6	6583	(6) ₂ (C:C)	4.0	2065
(66) ₂ (N:N) _O	4.1	4247	(N ₂ 65) (O:N) _O	4.4	6652	(6) ₂ (N:N)	3.8	2250
	4.3	4248		4.3	6654	(6) ₂ (N:C)	4.2	2520
(66) ₂ (N:C) ₂	4.7	4257	(N ₃ 6)	3.3	6938	(6) (O:C)	3.9	2740
(66) (O:C) (C:C)	4.0	4292	(N ₃ 65)	3.8	6964			2818
(66) (O:C) (C:C) _O	4.6	4326		3.8	6971		4.3	2834
			(N ₃ 65) (O:N) _O	4.3	7000	(6) (O:C) ₂	4.1	2854
(66) (6) (N:N)	4.1	4400					4.0	2855
(N:66:N)	4.3	4450	(N ₄ 65)	3.8	7065	(6) ₂ (O:C)	4.3	2865
(O:66:O)	4.3	4469		4.1	7072	(6) (O:C) (C:C)		3127
	4.5	4493		4.0	7099	(6) (O:C) _O	4.1	3267
(75)	4.4	4533		4.2	7119			3275
	4.4	4535		4.2	7120	(6) ₂ (O:C) _O	4.3	3324
(6 ₃)	4.9	4652		4.2	7121			
(6 ₃) (O:C)	5.1	4699	(N ₄ 65:O)	4.0	7233	(6) (O:C) _{C1}		3448
(6 ₄) (N:C)	4.6	5020	(O:N ₄ 65:O)	4.0	7253			
(6 ₄ 5 ₂)	4.6	5106	(O:N ₄ 66:O)	3.7	7335	(6) (O:N) _O	3.7	3535
(N6)	3.5	5245	(O:N ₄ 66:O) (O:C) _O	4.1	7339		3.8	3550
	3.6	5248					4.2	3567
	3.7	5257	(N ₅ 65) (6)	3.7	7381		3.8	3570
	4.0	5275	(O66:O) (6)	4.6	7717		4.0	3635
	3.6	5319		4.6	7720	(7:O)	4.5	4058
	3.6	5321	(O:ON5:C) (6) ₂	4.2	7806	(7:O) (6) (O:N) (C:C) _O	4.2	4092
	3.5	5348	(S5) (6) ₂		8043			
	3.8	5349	(Se5) (6) ₂		8405	(66) ₂ (N:N) _O	4.4	4249
	3.5	5350	(Se5) (6) ₂ (O:C)		8408			
(N6) (C:C)	3.7	5401				(66) (O:N)	4.4	4330
	3.7	5404					4.1	4337
(N6) (O:C) _N	3.4	5416	λ _{max.} : 263-263.5μ			(66) (6)	4.9	4359
							4.8	4360
(N6) (O:C) _O	3.6	5425	none	2.5	28	(O:66:O)	4.3	4463
	3.7	5426	(C:C) ₂	3.4	104	(6 ₃)	4.9	4663
	3.5	5427	(N:C) (C:C)	4.3	431	(6 ₃) (O:C) _O	4.9	4704
	3.6	5429	(O:C) (C:C)	3.7	758			
	3.5	5432	(O:C) (C:C) ₂	4.4	792	(6 ₃ 5:C) (O:C) _O	4.8	4892
			(O:C) (C:C) ₅	4.0	860			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N5) (O:C) O	3.6	5206	λ _{max.} : 264-264.5μ			(O:6:O)	4.2	3965
(N6)	3.8	5247	none	3.9	33		4.3	3970
	3.5	5349	(C:C) ₃	4.2	178		4.3	3973
	3.3	5250	(C:C)(C:C) ₂	4.2	262	(7:O)	4.4	3980
	3.7	5251	(C:C) ₂ (C:C)	4.1	279	(66) ₂ (N:N)	4.3	4056
	3.5	5252	(N:C)		339	(66)(O:N) O	4.0	4245
	3.4	5267	(N:C)(C:C)	4.3	397			4349
	4.4	5280		4.4	405	(O:66:O)	4.3	4500
	3.6	5318		4.3	417	(75)(6)	4.4	4594
	3.6	5320		4.4	430	(6 ₃)	4.8	4658
	3.6	5324		4.3	454		4.8	4660
	3.6	5333	(O:C)	1.2	593	(6 ₃ 5:N)	4.6	4895
	3.6	5353	(O:C)(C:C)	4.1	730	(6 ₄)(O:C) O	4.6	5037
(N6) ₂	3.7	5392		4.1	741			
(N6)(O:C) O	3.5	5424	(O:C)(C:C) ₅	3.8	863	(6 ₅)	4.7	5082
			(O:C) ₂ (C:C)	4.2	913	(6 ₆)	4.7	5118
(N6)(6)(O:C)		5483	(O:C)(O:C)(C:C) ₂	4.5	1218	(N6)	3.6	5323
(N65)	4.0	5565	O N				4.1	5335
	4.0	5566	(6)	2.5	1358		3.4	5354
(N66)(6)	4.6	5821		2.8	1521	(N6)(C:C)	3.6	5400
(N665)	4.5	5929		2.9	1524		3.6	5403
(N665)(6)(O:C) N	4.3	5960			1581	(N6)(O:C)	3.6	5413
					1649	(N6)(O:C) O	3.6	5420
(N6 ₃)	4.8	5990		2.9	1652			
(N26)	3.7	6313		2.7	1656	(N6:O)	3.8	5522
	3.2	6317		4.4	1675	(N65)	4.1	5559
(N26:O)	3.9	6495		3.0	1709	(N66)	4.4	5724
	4.0	6504		2.9	1712	(N66)(O:N) O	4.3	5816
(N266)	3.8	6682		2.3	1718			
(N266)(6)	4.4	6706		2.5	1774	(N66)(6)	4.6	5822
(N266:O)(O:C) O	3.9	6741			1798	(N665)(O:C) N	4.2	5950
				2.3	1802			
(N26 ₃)	4.5	6793	(6) ₂	4.2	1869	(N6 ₃)		5961
(N36)	4.1	6922		2.7	1877		5.0	6007
(N365)(O:N) O	4.2	6999		4.3	1908	(N6 ₃ 5)	4.7	6048
	4.2	7002		4.3	1913	(N26)	3.9	6240
(N465)	3.9	7055		4.3	1914		3.7	6253
	4.0	7104	(6)(C:C)	4.2	2033		3.7	6260
	4.2	7134	(6) ₂ (C:C) ₂	4.2	2097		3.7	6262
(N465:O)	4.0	7237	(6) ₃ (C:C) ₂	3.9	2124		3.8	6266
(N466:O)	4.1	7321	(6)(N:N) O	4.1	2399	(N26:O)	3.6	6401
							3.6	6414
(O5)(O:C) ₂ O	3.4	7474	(6) ₂ (O:C)(C:C)	4.3	3065		3.8	6422
			(6) ₂ (O:C)(C:C) O	4.0	3382		3.8	6424
(O66:O)(6)	4.5	7714					4.6	6461
(S5)	3.5	7964	(6)(O:N) O	4.1	3485		3.7	6483
(S5)(6)(O:C)	4.1	8048		4.2	3492	(O:N26:O)	3.9	6568
(O:S65:O)	4.2	8114		4.2	3518		3.9	6569
(SN65)	4.1	8252	(6)(O:N) O	3.9	3625		3.6	6584
				3.9	3629		3.9	6597
			(6)(O:N)(O:C) O O	4.1	3887	(N266:O)(O:N) O	4.1	6745
			(6)(O:As)	4.0	3903	(N2665)	4.4	6769

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N5) (O:C) O	3.6	5206	$\lambda_{\max.}: 264-264.5\mu$			(O:6:O)	4.2	3965
(N6)	3.8	5247	none	3.9	33		4.3	3970
	3.5	5349	(C:C) ₃	4.2	178		4.3	3973
	3.3	5250	(C:C)(C:C) ₂	4.2	262	(7:O)	4.4	3980
	3.7	5251	(C:C) ₂ (C:C)	4.1	279	(66) ₂ (N:N)	4.3	4056
	3.5	5252	(N:C)		339	(66)(O:N) O	4.0	4245
	3.4	5267	(N:C)(C:C)	4.3	397			4349
	4.4	5280		4.4	405	(O:66:O)	4.3	4500
	3.6	5318		4.3	417	(75)(6)	4.4	4594
	3.6	5320		4.4	430	(6 ₃)	4.8	4658
	3.6	5324		4.3	454		4.8	4660
	3.6	5333	(O:C)	1.2	593	(6 ₃ 5:N)	4.6	4895
	3.6	5353	(O:C)(C:C)	4.1	730	(6 ₄)(O:C) O	4.6	5037
(N6) ₂	3.7	5392		4.1	741			
(N6)(O:C) O	3.5	5424	(O:C)(C:C) ₅	3.8	863	(6 ₅)	4.7	5082
			(O:C) ₂ (C:C)	4.2	913	(6 ₆)	4.7	5118
(N6)(6)(O:C)		5483	(O:C)(O:C)(C:C) ₂	4.5	1218	(N6)	3.6	5323
(N65)	4.0	5565	O N				4.1	5335
	4.0	5566	(6)	2.5	1358		3.4	5354
(N66)(6)	4.6	5821		2.8	1521	(N6)(C:C)	3.6	5400
(N665)	4.5	5929		2.9	1524		3.6	5403
(N665)(6)(O:C) N	4.3	5960			1581	(N6)(O:C)	3.6	5413
					1649	(N6)(O:C) O	3.6	5420
(N6 ₃)	4.8	5990		2.9	1652			
(N ₂ 6)	3.7	6313		2.7	1656	(N6:O)	3.8	5522
	3.2	6317		4.4	1675	(N65)	4.1	5559
(N ₂ 6:O)	3.9	6495		3.0	1709	(N66)	4.4	5724
	4.0	6504		2.9	1712	(N66)(O:N) O	4.3	5816
(N ₂ 66)	3.8	6682		2.3	1718			
(N ₂ 66)(6)	4.4	6706		2.5	1774	(N66)(6)	4.6	5822
(N ₂ 66:O)(O:C) O	3.9	6741			1798	(N665)(O:C) N	4.2	5950
				2.3	1802			
(N ₂ 6 ₃)	4.5	6793	(6) ₂	4.2	1869	(N6 ₃)		5961
(N ₃ 6)	4.1	6922		2.7	1877		5.0	6007
(N ₃ 65)(O:N) O	4.2	6999		4.3	1908	(N6 ₃ 5)	4.7	6048
	4.2	7002		4.3	1913	(N ₂ 6)	3.9	6240
(N ₄ 65)	3.9	7055		4.3	1914		3.7	6253
	4.0	7104	(6)(C:C)	4.2	2033		3.7	6260
	4.2	7134	(6) ₂ (C:C) ₂	4.2	2097		3.7	6262
(N ₄ 65:O)	4.0	7237	(6) ₃ (C:C) ₂	3.9	2124		3.8	6266
(N ₄ 66:O)	4.1	7321	(6)(N:N) O	4.1	2399	(N ₂ 6:O)	3.6	6401
							3.6	6414
(O5)(O:C) ₂ O	3.4	7474	(6) ₂ (O:C)(C:C)	4.3	3065		3.8	6422
			(6) ₂ (O:C)(C:C) O	4.0	3382		3.8	6424
(O66:O)(6)	4.5	7714					4.6	6461
(S5)	3.5	7964	(6)(O:N) O	4.1	3485		3.7	6483
(S5)(6)(O:C)	4.1	8048		4.2	3492	(O:N ₂ 6:O)	3.9	6568
(O:S65:O)	4.2	8114		4.2	3518		3.9	6569
(SN65)	4.1	8252	(6)(O:N) O	3.9	3625		3.6	6584
				3.9	3629		3.9	6597
			(6)(O:N)(O:C) O O	4.1	3887	(N ₂ 66:O)(O:N) O	4.1	6745
			(6)(O:As)	4.0	3903	(N ₂ 665)	4.4	6769

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₃ 65)	3.8	6976		4.4	1470		3.4	4181
(N ₄ 65)	3.9	7060		4.1	1485	(66) (O:C)	4.7	4282
	3.9	7066		4.1	1500	(66) (O:N)	4.3	4339
(N ₄ 65:O)	3.7	7178		4.0	1502	(66) (6) (N:N)	4.1	4378
	4.0	7230		3.0	1519		4.2	4407
(O:N ₄ 65:O)	3.9	7264		3.4	1520	(N:66:N)	4.3	4451
	3.9	7266		3.1	1523	(O:66:O)	4.5	4472
(O:N ₄ 6 ₃ :O)	4.0	7357			1537		3.2	4499
(O66:O) (6)	4.8	7732		2.8	1541	(O:66:O) (C:C)	4.4	4514
(O665)	4.2	7752		2.7	1578	(665)	3.3	4598
	4.4	7754		2.8	1588	(665:C)	4.7	4604
	4.2	7756		4.0	1638	(64) (O:C)	4.9	5034
	4.4	7757		3.0	1646	O	4.7	5036
(O:ON5:C) (6) ₂	4.2	7824		3.0	1653	(65)	4.7	5073
	4.3	7825		2.5	1727	(N5) (O:C)	3.9	5208
	4.5	7827		3.0	1777	O		
(ON ₂ 65:O) (6)	3.9	7947	(6) ₂	4.3	1871	(N6)		5264
(SN65)	4.1	8269		4.3	1872		4.4	5288
				4.4	1902		4.4	5289
				4.3	1922		4.1	5327
$\lambda_{\max.}$: 265–265.5m μ			(6) (C:C)	2.5	2014		4.1	5358
				4.2	2024		3.6	5363
(C:C) ₃	3.6	158		4.2	2027	(N6) (O:C)	3.8	5421
	4.3	167	(6) ₂ (C:C)	4.2	2077	O	3.9	5422
(C:C) (C:C) ₂	4.3	260	(6) (N:C)	4.3	2455		3.6	5423
(C:C) ₂ (C:C)		280		4.4	2459	(N6:N)	4.4	5503
		281		3.8	2483	(N6:O)	3.6	5521
(N:C)	4.1	314		4.1	2493		3.8	5530
	4.1	315	(6) ₄ (N:C) ₂	4.5	2574	(N65)	3.9	5564
	4.1	316	(6) (N:C)	2.5	2621		3.7	5570
(N:C) ₂	4.2	380	(6) (O:C)	4.1	2652	(N65) (O:N)	4.1	5581
(N:C) (C:C)	4.4	418		4.2	2679	(N66)		5669
	4.4	440		4.1	2711		4.4	5682
(N:C) (C:C) ₂	4.7	485		4.2	2833		3.6	5776
(N:C) (C:C)	4.3	554	(6) (O:C) ₂	4.3	2856	(N66) (6)	4.7	5823
(N:C) (C:C) (C:C) ₂	4.2	560	(6) ₂ (O:C)	4.4	2866	(N66:O) (O:N)	4.1	5908
(O:C) (C:C)		680		4.4	2900	O		
	4.3	739	(6) ₂ (O:C) ₂	4.2	2912	(N665) (O:N)	4.5	5957
(O:C) (C:C) ₂	3.7	783		4.4	2914	O		
(O:C) (C:C) ₃	4.1	844		3.5	2918	(N6 ₃)	4.9	5994
(O:C) (C:C)	4.3	1048	(6) ₂ (O:C) (C:C) ₂	4.1	3098	(N6 ₃) (O:N)	4.5	6031
O	3.9	1065		4.0	3100	O		
	4.2	1068	(6) (O:C)	4.2	3193	(N6 ₃) (6)	4.6	6034
	4.2	1070	O				4.6	6035
(O:C) (C:C) ₂	4.2	1087	(6) (O:C) (C:C)		3336	(N ₂ 6)	4.4	6173
O			O		3337		4.0	6193
(O:C) (C:C) (C:C) ₄	4.1	1155	(6) (O:N)	4.3	3622		3.6	6200
O			O		3640		3.1	6316
(O:N)	4.2	1299		3.6	3641		3.2	6321
O			(6) (O:N) ₂	4.2	3696		4.0	6337
(S:C)	4.1	1304	O	4.0	3713		3.6	6349
(6)	3.3	1360	(6) ₂ (O:N) ₂ (N:C) ₂	4.5	3853	(N ₂ 6:O)	3.8	6441
	2.9	1367	O				3.6	6449
	3.1	1391	(66)	4.4	4167		3.6	6468

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.1	6470	$\lambda_{\max.}: 266-266.5\text{m}\mu$			(6 ₄) (O:C) O	4.6	5038
(S:N ₂ 6:O)	4.2	6616				(6 ₅)	4.6	5088
(N ₂ 66:O)	3.8	6720	(N:C) (C:C) ₃	4.4	509	(6 ₅) (N:C)	4.7	5092
	4.4	6736	(O:C)	1.6	601	(N ₆)	3.5	5261
(N ₂ 66:O) (O:N) O	4.3	6751	(O:C) (C:C) ₂ O		1082		3.7	5263
(N ₂ 665)	4.7	6768	(O:C) (C:C) ₂ O	3.6	1152		3.7	5322
(N ₂ 6 ₆)	4.8	6855					3.5	5356
(N ₃ 5) (6) ₂	4.4	6883	(O:N)	1.3	1245		3.3	5364
(N ₃ 6)	4.2	6908	(6)	2.6	1374		4.2	5369
(N ₃ 6:O)	4.3	6946		2.5	1376	(N ₆) (C:C)	3.6	5399
(N ₃ 65) (O:N) O	4.2	7001		4.3	1426		3.6	5402
				4.2	1430	(N ₆) (O:C) O	3.4	5431
(N ₄ 5:N)	3.1	7052		3.2	1601			
(N ₄ 65)	3.9	7057		4.0	1644	(N ₆ 5)	4.1	5558
	4.0	7163		3.3	1651	(N ₆ 6)		5762
(N ₄ 65:O)	4.3	7242		3.3	1715	(N ₆ 6) (O:N) O	4.4	5817
	4.1	7246			1733			
(O:N ₄ 65:O)	4.0	7256		2.5	1806	(N ₆ 3)	4.9	5995
(N ₄ 66:O) (O:C) O	4.2	7322	(6) ₂	4.3	1910	(N ₂ 5) (6) ₂	4.4	6073
	4.1	7324		4.4	1941	(N ₂ 6)	3.8	6234
(O:N ₄ 66:O) (O:C) O	4.2	7341	(6) (N:N)	4.1	2149		3.6	6239
			(6) ₂ (N:N)	4.0	2299		3.3	6353
(O:N ₄ 63:O)	4.9	7359	(6) (O:C)	4.1	2774	(N ₂ 6:O)	3.7	6415
(N ₅ 65)	3.7	7372	(6) (O:C) ₂	4.1	2851		3.8	6421
	3.7	7374	(6) ₂ (O:C)	4.2	2869		3.8	6432
	3.8	7375	(6) ₂ (O:C) ₂ (N:N) O O	4.2	3400		3.7	6497
	3.8	7376					3.6	6498
(O:N ₅ 65:O)	3.8	7393	(6) (O:N) O	3.7	3481	(N ₂ 6 ₃)	4.6	6792
	3.8	7394		3.9	3556	(N ₄ 65)	4.0	7061
	4.5	7396	(6) (O:N) ₂ O	4.2	3672		3.9	7064
(O5)	4.1	7407					4.2	7079
(O5) (C:C)	4.3	7413	(6) (O:N) (C:C)		3767		4.1	7166
(O5) (N:C)	4.3	7419					4.1	7167
(O5) (O:N) (N:C) O	4.1	7499	(6) ₂ (O:N) ₂ (N:C) ₂ O	4.5	3854	(O:N ₄ 65:O)	4.0	7258
	4.1	7500				(O5) (6) ₃	4.2	7528
(O5) (6) ₂	4.1	7518	(6) (O:N) (O:C) O	4.1	3864	(O5) (6) (N:C) (C:C)		7543
(O65) (O:C) O	4.2	7630				(O66:O) (6)	4.4	7725
			(7:O)	4.3	4057	(ON ₂ 65:O) (6)	4.2	7948
(ON5) (6)	4.3	7792	(66)	3.6	4195	(S5)	4.2	7976
(ON65) (6) (O:N) O	4.3	7925		3.6	4196	(S5) (O:C)	4.0	7998
				3.6	4197	(S5) (O:C) (C:C)	4.0	8003
(S5) ₂ (N:C) ₂	4.1	7991	(66) ₂ (N:N)	4.3	4244	(S5) (O:C) ₂ O	3.9	8013
(O:S65:O)	4.1	8115	(66) (O:C) O	3.8	4302			
(S665) (O:N) O	4.2	8141		3.8	4304	(SN5)	3.9	8181
			(66) (6)	4.4	4367	(SN65)	4.3	8254
(S6 ₃ 5)	4.9	8156	(66) (6) (N:N)	4.0	4376		4.1	8262
(SN5)		8182	(O:66:O)	4.2	4505			
(SN65:N)	3.9	8333	(75)	4.2	4531			
(SN665)	4.7	8351	(6 ₃) (6)	4.7	4714	$\lambda_{\max.}: 267-267.5\text{m}\mu$		
				4.5	4715			
			(6 ₃) (6) ₂	4.5	4722	none	2.2	49
			(6 ₄)	5.1	4911	(C:C) ₂	3.6	132
				4.8	4966	(C:C) ₃ (C:C) ₂	5.0	288

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N:C)	4.1	317		4.2	4551	(O5) (N:C)		7420
(N:C) ₂	2.4	376		4.5	4553	(S:SN5: ^O C) (66)	4.0	8238
(N:C) (C:C)	4.3	416	(665:C)	4.8	4605	(SN65:N)	4.1	8334
	4.4	451	(O:6 ₃ :O)	4.5	4794	(Se5) (6) ₂		8406
	4.4	462	(O:6 ₃ :O) (6)	4.5	4846	(SeSN26655)	4.2	8443
	4.4	463	(64)	5.1	4902			
(O:C) ₂	0.8	619		4.9	4972			
(O: ^O C) (C:C)	4.2	1042	(645:O)	4.4	5065			
_O	4.5	1051	(65)	4.7	5066			
(^O :5:C)	4.3	1322		4.7	5081			
(6)	4.0	1410		4.6	5091			
	4.0	1501	(6 ₅) (O:C)	4.6	5093	none	2.8	43
		1566	(N5) (O:C) ₂	4.2	5215	(C:C) ₂	4.4	147
	3.0	1650	_O			(C:C) ₃	3.6	161
	3.3	1659	(N6)		5266	(C:C) ₃	2.3	237
	3.0	1664		3.6	5325	(N:C)	4.4	346
	2.9	1666		3.6	5326	(N:C) ₂ (C:C) ₂	4.4	580
	2.5	1728	(N6) (O:C)	4.3	5338	(O:C) (C:C)	4.4	740
		1730	(N6) (O:C)	3.5	5412		4.1	742
	4.0	1797	_N		5419		4.3	745
(6) ₂	4.4	1934	(N6) (6)	4.2	5442		3.9	751
(6) ₄ (C:C:C)		2134	(N66)			(O:C) (C:C) ₅	3.9	862
(6) ₂ (N:C) ₂	4.4	2544	(N66) (6) (O:C)	3.6	5660	(O:C) (N:C)		967
(6) ₃ (N:C) ₂	4.5	2567	_O		5841	(O:C) (C:C) ₂	4.2	1084
(6) (O:C)	4.1	2653	(N6 ₃)	4.3	5962	(6)	2.9	1359
	3.5	2757		4.9	5983		2.5	1365
	4.2	2777	(O:N ₂ 5:C) (6)	4.0	6100		2.3	1369
	4.1	2830		4.0	6101		4.0	1483
(6) ₂ (O:C) ₂	3.6	2919	(N ₂ 6)	3.6	6176			1667
(6) (O:C) (C:C)	3.9	2990		3.7	6252		4.3	1701
(6) ₂ (O:C) (C:C)		3080		3.8	6292			1799
		3081		3.8	6293			1804
(6) (O:C)	4.3	3199		3.5	6354			1809
_O			(N ₂ 6:O)	3.7	6435	(6) ₂	4.2	1867
(6) (O:C) (C:C)		3357		3.6	6450		4.2	1909
				3.6	6469		4.4	1951
(6) (O:C) (O:C) (C:C)	4.2	3416	(N ₂ 65) (O:N)	4.4	6655		4.4	1953
_O	4.1	3436	_O			(6) (N:C)	2.9	2411
(6) (O:C)	3.9	3444	(N ₂ 66:O)	3.8	6729		4.1	2492
			(N ₃ 5) (6)	2.6	6870	(6) ₂ (N:C) ₂	4.3	2549
(6) (O:N) (O:C)	4.3	3875		3.9	6882	(6) (N:C)	2.9	2622
_O			(N ₃ 65)	3.7	6968	(6) (O:C)	4.1	2802
(7:O) (6)	4.3	4081	(N ₄ 5:N)	3.0	7053		4.0	2827
	4.5	4100	(N ₄ 65)	4.1	7074		4.0	2828
	4.0	4156		4.2	7078		4.0	2831
(66) ₂ (N:C) ₂	4.4	4258		4.1	7098		4.0	2832
(66) ₂ (O:C) ₂	3.7	4315		4.0	7103	(6) ₂ (O:C) ₂	4.1	2915
_O				4.0	7168	(6) (O:C)	2.7	3167
(66) (6) (O:C)	4.7	4428	(N ₄ 65:O)	4.0	7238			
(O:66:O)	4.0	4458	(O:N ₄ 65:O)	3.9	7249	(6) ₂ (O:C) ₂	3.8	3330
(66)	4.3	4501		4.1	7270			
	4.0	4502		4.0	7275	(6) (O:C) (C:C)	4.0	3332
(75)	4.3	4541	(O5) (C:C)	3.8	7412	_O	4.3	3333

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
$(6)_2(O:C)_2(N:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.1	3399	$(O:N_466:O)(O:C)$ $\begin{array}{c} O \\ \\ O \end{array}$	3.9	7338	(75)	4.3	4542
$(6)(O:C)$ $\begin{array}{c} S \\ \\ O \end{array}$	3.9	3443	$(O66:O)(6)$		7722	(6 ₃)	4.9	4665
$(6)(O:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	3.8	3584		4.1	7724	(6 ₄)	5.1	4907
	4.3	3620	$(O:O665:O)$	4.5	7761		5.2	4908
	3.7	3653	$(S5)(O:C)$	3.9	8002		5.1	4909
$(66)(O:C)(C:C)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.5	4316	$(S5)(O:C)_2$ $\begin{array}{c} O \\ \\ O \end{array}$	4.2	8014		5.2	4912
	4.4	4320	$(S5)(N6)_4$	4.4	8054	$(6_4)(C:C)$	5.1	5012
$(66)(O:N)$	4.3	4336	$(S5)(N_45)$	4.0	8055	(6 ₅)	4.8	5089
$(66)(6)(N:N)$	4.3	4401	$(S665)(O:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.2	8151	(6_55)	4.6	5107
$(66)(6)(N:C)_2$	4.9	4418				(N6)	3.9	5262
$(O:66:O)$	4.2	4487	$(SN5)$	3.9	8167		3.4	5351
(75)	4.3	4546					3.9	5352
$(6_3)(6)$	5.0	4709				$(N6)_2$	4.0	5377
$(6_35:O)$	4.8	4896	$\lambda_{max.}: 269-269.5m\mu$			$(N65)$	3.8	5569
$(6_5)(N:C:O)$	4.7	5096				$(N66)$	3.6	5764
(6_55)	4.8	5108	$(C:C)_4$	4.2	182	$(N66:O)$	3.6	5862
(N6)	3.6	5260	$(C:C)(C:C)_2$	4.5	268	$(N665)(O:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.4	5954
	3.4	5566	$(O:C)(C:C)$	3.9	752	$(N6_3)$	4.5	5982
(N65)	4.1	5557	$(O:C)_2(C:C)$	3.9	910	(N_26)	3.7	6225
$(N66:O)$	3.8	5876		4.1	914		3.9	6327
$(N66:O)(6)$	4.5	5910	$(O:N)(C:C)$	3.7	1297	$(N_26:O)$	4.0	6506
$(N6_3)$	4.8	5987	$\begin{array}{c} O \\ \\ O \end{array}$			$(N_26:S)$	4.2	6543
	4.3	6005	$(5-Fe)(O:C)$	3.9	1319		4.3	6549
$(N6_35)$	4.8	6049	(6)	2.8	1597		4.2	6554
(N_26)	3.6	6157		3.2	1643	$(N_265)(O:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.4	6657
	3.7	6159		3.1	1665			
	3.7	6180		4.3	1696	$(N_266:O)$	4.0	6738
	3.6	6187		2.5	1719	(N_26_3)	4.4	6789
		6192	$(6)_2$	4.4	1892	$(N_35)(6)$	4.1	6881
	3.6	6210	$(6)(N:C)$	2.9	2631	(N_36)	4.2	6923
	3.6	6228	$(6)(O:C)$	4.1	2753	(N_465)	4.2	7113
	3.6	6267	$(6)_2(O:C)_2(C:C)$	4.3	3120		4.2	7114
	4.2	6290	$(6)(O:C)(C:C)$	4.1	3128		4.1	7115
	3.5	6305	$(6)(O:C)$		3134		4.0	7170
$(N_26:O)$	3.5	6408	$\begin{array}{c} N \\ \\ O \end{array}$			$(O:N_465:O)$	4.0	7262
	3.6	6427	$(6)(O:C)$	2.5	3181		4.0	7276
		6454	$\begin{array}{c} O \\ \\ O \end{array}$	4.3	3268		4.0	7278
		6455	$(6)(O:C)(O:C)$	3.9	3407	$(O5)$		7404
	3.9	6478	$\begin{array}{c} O \\ \\ O \end{array}$			$(O6:O)$	3.9	7598
	3.9	6481	$(6)(O:N)$	4.7	3494	$(O:O65:C)(6)$	3.9	7636
	3.8	6482	$\begin{array}{c} O \\ \\ O \end{array}$	3.8	3590	$(O66:O)(6)$		7711
$(N_26:S)$	4.5	6563	$(6)(O:N)(C:C)$	3.8	3780			7721
$(O:N_26:O)$	4.0	6575	$\begin{array}{c} O \\ \\ O \end{array}$			$(O6_45)$	4.6	7786
	4.0	6580	$(O:6:O)$	4.3	3990	$(ON65)(6)(O:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.5	7922
(N_465)	4.2	7081	$(O:6:N:N)$	3.5	4038			
	3.9	7129	(66)	3.7	4161	$(SN65)$	4.2	8260
	3.9	7130	$(66)(O:C)$	3.7	4309		4.2	8272
	4.1	7156	$\begin{array}{c} O \\ \\ O \end{array}$					
$(O:N_465:O)$	4.0	7269	$(66)(6)(N:N)$	4.1	4377			
$(N_466:O)(O:C)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.0	7327	$(66)(6)(N:N)$ $\begin{array}{c} O \\ \\ O \end{array}$	4.1	4415	$\lambda_{max.}: 270-270.5m\mu$		
			$(O:66:O)$	4.3	4466	$(C:C)_3$	4.3	157

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.6	159	(6) (O:C)	2.9	3178		3.7	6489
(N:C)	4.9	345	O	3.0	3191	(N ₂ 6:S)	4.2	6537
(N:C) (C:C)	4.0	432		3.4	3236	(O:N ₂ 6:O)	4.3	6596
	4.4	441		3.3	3242	(O:N ₂ 6:O) (O:C)	4.0	6601
(N:C) (C:C) ₂	4.2	500		3.4	3247	O	4.0	6602
(N:C:N)	1.4	581	(6) (O:C) ₂		3314	(N ₂ 66)	3.5	6661
(O:C)	1.2	592	O				4.3	6667
(O:C) ₂	1.3	625	(6) (O:C)	3.9	3445	(N ₂ 66:O)	4.2	6735
(O:C) (C:C)	3.9	748	S			(N ₂ 6 ₃)		6801
(O:C) (C:C) ₂	4.4	791	(6) (O:N)	3.6	3524	(N ₂ 6 ₄)	4.6	6847
(O:C) ₂ (C:C) ₂	4.4	918	O	4.0	3571	(N ₃ 5) (6)	2.7	6867
(O:C) (C:C)	3.8	1047		3.7	3577	(N ₃ 5) (N ₆)	3.8	6896
O			(6) (O:N) ₂	3.8	3702	(N ₃ 6)	4.3	6921
(O:C) ₂ (C:C) ₂	4.3	1128	O				4.3	6930
(O:N)	1.0	1286	(6) (S:C)	3.9	3904	(O:N ₃ 66:O)		7011
O			(O:6:O)	4.3	3988	(N ₃ 6 ₃ 5)	4.8	7014
(6)	2.6	1380	(66)	3.8	4213	(N ₃ 6 ₄)	4.4	7015
	4.1	1504	(66) (C:C)	4.7	4240	(N ₄ 65:O)	3.6	7200
	3.0	1531	(66) (O:C)	3.8	4305		3.6	7201
	4.0	1533	O				4.3	7204
	3.2	1544	(66) (O:N)	3.6	4338		4.2	7243
	2.3	1548	(O:66:O)	4.4	4478	(O:N ₄ 65:O)	4.0	7268
	3.0	1589		4.1	4484	(N ₄ 66:O)	4.1	7317
	2.9	1592		3.9	4486	(N ₄ 66:O) (O:C)	4.2	7328
	2.7	1600	(6 ₃) (O:C)	4.8	4701	O		
	3.0	1672	(6 ₃) (6)		4713	(O:N ₄ 66:O) (O:C)	3.9	7340
	3.6	1706	(O:6 ₃ :O)	5.8	4735	O		
		1717	(6 ₄) (O:C)	4.8	5025	(O:N ₄ 6 ₃ :O)	4.5	7360
	2.9	1772	(6 ₄) (O:C)	5.0	5031	(O5)		7403
		1805	O			(O5) (N:C)		7416
	3.1	1835	(N5) (O:C)	4.2	5202		4.2	7418
(6) ₂	4.6	1950	O	3.7	5209	(O5) (O:C)	4.2	7435
	4.4	1956	(N6)	3.5	5361	(O5) (6) ₄	4.2	7539
(6) (C:C)	4.1	2010		3.7	5355	(O6:O) (O:C) ₂	4.1	7621
(6) ₂ (C:C)	3.8	2094	(N66)	3.6	5663	O	4.0	7622
(6) (N:C)	3.8	2415		3.5	5666	(O6:O) (6) ₂	4.5	7631
	2.8	2417		3.6	5770	(O65) (6)	4.3	7647
		2451		3.5	5772	(O66:O) (6)		7694
(6) ₂ (N:C)	4.1	2517		3.5	5778			7709
(6) (N:C)	3.0	2624		3.4	5779	(O:ON5:C) (6) ₂ (O:N)	4.6	7731
	4.3	2625		3.6	5780	O		
	4.4	2629	(N66:O)	3.4	5864		4.1	7862
(6) ₃ (N:C:C)	4.5	2646		3.8	5877	(ON65)	3.5	7899
(6) (O:C)	4.1	2741	(N665)	4.6	5945	(ON65) (O:N)	3.8	7903
	4.1	2746	(N6 ₃)	4.9	5972	O		
	4.1	2754	(N ₂ 6)	3.6	6191	(S5) (O:C) ₂	4.1	8015
	4.1	2755			6197	O		
(6) (O:C) (C:C)	4.2	2944		3.7	6223	(S5) (O:N)	3.8	8025
	3.7	2998		3.6	6242	O		
(6) ₂ (O:C) (C:C)		3078		3.9	6301	(S5) (6)	4.2	8037
		3079	(N ₂ 6:O)	4.2	6447	(S5) (O:ON5:C) (6)	4.2	8065
		3082		4.4	6448	(SN5) ₂ (6) ₈	4.6	8196
		3083		3.7	6487	(SN5) (6) ₂ (C:C)	4.3	8201
				3.7	6488	(SN5:O) (6) ₂ (C:C)	4.3	8227

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(SN65:N)	3.9	8335	(6) (O:N) ₂ (C:C)	4.2	3803	(N:C)		342
	4.0	8336					4.4	371
(Se665)	4.3	8417	(7:O)	4.9	4059	(N:C) (C:C)	4.4	423
			(66)	3.6	4150	(O:C)	1.2	589
			(66) (O:C)	3.7	4308	(O:C) (C:C)	3.9	747
						(O:C) (C:C) ₂	4.3	800
λ _{max.} : 271-271.5μ			(75)	4.3	4544	(O:C) ₂ (C:C) ₂	4.1	916
none	2.4	47	(6 ₃) (6)	4.8	4712	(O:C) (C:C) ₂	4.4	1080
(C:C) ₂	3.7	135	(O:6 ₃ :O)	4.5	4791			
(C:C) ₃	3.5	175		4.6	4809	(O:C) ₂ (C:C) ₂	4.3	1127
(C:C) (C:C) ₂	4.2	265	(6 ₄)	5.1	4910			
(C:C:C:C)	4.5	300	(6 ₄) (O:C)	4.6	5037	(6)	3.3	1364
(N:C)	4.4	334					2.6	1378
	4.3	370	(N5) (6)	4.0	5226		2.5	1381
(N:C) (C:C)	4.4	442	(N6) (C:C)	4.0	5405		2.5	1382
(O:C)	1.4	597	(N65)	3.7	5552		3.3	1546
(O:C) (C:C) ₂	4.4	790		3.6	5571		3.3	1547
(O:C) (C:C)	4.3	1049	(N66)	3.8	5765		3.3	1585
			(N66:O)	3.6	5863		4.2	1679
(O:N)		1262	(N ₂ 6)	3.3	6258			1722
				3.1	6302		3.0	1801
(6)	3.1	1406	(N ₂ 6:O)	3.6	6417			1825
	3.0	1421		3.6	6466	(6) ₂	4.3	1911
	3.8	1437		3.6	6467		4.1	1915
	3.9	1446	(N ₂ 6:S)	4.2	6553	(6) ₂ (C:C)	4.3	2072
		1559	(N ₂ 6 ₃)	4.5	6794	(6) (C:C)	2.5	2135
		1563		4.4	6795	(6) (N:C)	4.4	2439
	3.3	1572	(N ₃ 6)	3.0	6900	(6) (N:C) (C:C)	4.4	2635
	3.2	1591		4.3	6920	(6) (O:C)	4.0	2768
	2.7	1603	(N ₃ 65)	3.8	6972		4.0	2783
	3.1	1610	(N ₄ 65)	3.9	7056		4.0	2784
	4.4	1677		3.9	7059		4.0	2786
	2.6	1720		4.0	7169		4.0	2799
	2.3	1724	(N ₄ 65:O)	3.7	7180	(6) (O:C) (C:C)	4.2	3000
		1734		3.9	7195	(6) (O:C)	3.3	3238
	2.8	1773	(O:N ₄ 65:O)	4.1	7257		3.3	3251
(6) ₂	4.7	1868		4.0	7260	(6) (O:C) ₂	2.9	3307
	4.8	1873	(O:ON5:C) (6) ₂ (O:N)	4.1	7854			3319
	4.3	1912				(6) (O:C) (C:C)	4.2	3334
(6) ₂ (C:C)	4.0	2067	(O:ON5:C) (6) ₂ (O:N) ₂					
(6) ₃ (C:C) ₂	4.3	2122				(6) (O:C)		3447
(6) ₂ (N:C)	4.1	2509		4.2	7894			
(6) ₄ (N:C) ₂	4.4	2575	(S5) (N ₄ 5)	3.9	8057	(6) (O:N)	3.7	3456
(6) (N:C)	3.0	2616	(S5) (O:ON5:C) (6)	4.2	8066	(6) (O:N)	4.1	3487
(6) (O:C)	3.9	2739		4.1	8068		4.0	3489
	4.1	2800	(SN5:S) (6) (C:C)	4.1	8229		4.3	3569
(6) (O:C)	2.9	3165	(SN65)	4.3	8256		4.0	3572
	3.3	3256		4.3	8266		3.8	3574
(6) (O:C) ₂ (C:C) ₂	4.2	3370	(S ₂ N ₂ 6655)	4.2	8402		4.0	3630
							3.5	3647
(6) (O:C) ₂ (O:C)	4.0	3409				(6) ₃ (O:N) (O:C) (C:C)		
			λ _{max.} : 272-272.5μ				4.3	3880
(6) (O:C)	3.9	3446	(C:C) (C:C) ₂	4.2	263	(N:6:N) (6) ₂	4.6	3925

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(O:6:O) ₂	4.3	4006		4.0	8070		3.8	3585
(66) (O:C) (C:C)	4.5	4287	(S665) (O:C)	4.7	8139	(6) ₂ (O:N) (N:N)	4.2	3812
(66) (6) (O:C)	4.6	4434	_O			_O	4.0	3813
(6 ₄)	4.6	4904	(S:SN5: _O :C) (6)	3.9	8236	(66)	3.7	4147
	5.0	4975	(SN65)	4.1	8255		3.6	4209
(N6)	3.7	5300		4.3	8270	(66) (O:C)	4.4	4284
	3.9	5362		4.2	8271	(66) (O:C) (C:C)	4.2	4322
	3.6	5371			8407	_O		
(N6) (O:C)	3.4	5428	(Se5) (6) ₂			(66) (6) (N:N)	4.0	4376
_O	3.7	5430					3.9	4388
(N6:N)	4.7	5502				(75)	4.7	4528
(N6:O)	4.2	5519	λ _{max.} : 273-273.5μ			(O:6 ₃ :O)	4.5	4797
(N66)	3.8	5777				(6 ₄)	5.0	4963
(O:N66:O)	4.1	5919	none	2.1	45		4.3	4979
(N6 ₃)	4.8	6003	(C:C) ₃	3.5	174	(N5) (O:C) ₂	4.2	5213
(N ₂ 6)	2.5	6135	(N:C) (C:C)		399	_O		
	3.9	6146			403	(N6)	3.4	5373
	3.7	6156		4.5	409	(N6) ₂	4.0	5376
	3.6	6190	(O:C) (C:C)	3.9	716	(N65)	3.7	5573
		6199	(O:C) (C:C) ₂	4.4	1085	(N66)	3.3	5662
	3.6	6209	_O				3.6	5786
	3.6	6222	(O:5:C)	4.3	1321	(N66:O)	3.8	5896
	3.7	6236	_O			(N66:O) (O:C)	3.9	5906
	3.3	6259	(6)		1471	_O		
	3.9	6261		3.3	1553	(N ₂ 5:O) (6)	4.0	6094
	3.8	6272			1574	(O:N ₂ 5:C) (6)	4.3	6111
	3.5	6306		2.6	1721	_O		
	3.9	6327		3.2	1775	(N ₂ 6)	3.6	6202
(N ₂ 6:O)	3.9	6453		3.1	1776		3.7	6254
	4.0	6476			1779		3.6	6310
(N ₂ 65)	3.8	6632		2.5	1803		3.6	6311
(N ₂ 66) (O:N)	4.2	6693			1836	(N ₂ 6) (6)	4.3	6379
_O			(6) ₄		1967	(N ₂ 6:O)	4.4	6446
(N ₂ 6 ₃ 5)	4.7	6834	(6) ₂ (N:N)	3.8	2205	(O:N ₂ 6:O)	3.6	6586
	4.7	6835	(6) (N:C)	4.3	2418	(S:N ₂ 6:O)	4.1	6621
(N ₂ 6 ₄)	4.5	6846		4.1	2424		4.1	6622
(N ₃ 5) (6)	2.6	6870	(6) ₂ (N:C)	4.1	2524		4.1	6623
(N ₃ 5) (N6)	3.8	6895	(6) ₃ (N:C) ₂	4.3	2566	(N ₂ 65)	3.8	6637
(N ₃ 6)	4.2	6928	(6) (N:C) (C:C)	4.2	2634	(N ₂ 66)	4.0	6687
(N ₄ 65)	3.8	7108	(6) (O:C)	4.1	2775	(N ₂ 66:O) (O:N)	4.0	6746
	4.2	7158	(6) ₂ (O:C) (C:C) ₃	3.8	3103	_O		
(N ₄ 65:O)	3.6	7199	(6) (O:C) (C:C)	4.3	3153	(N ₂ 6 ₃)	4.7	6814
(O:N ₄ 65:O)	4.0	7277	_N			(N ₃ 65)	4.0	6960
(N ₄ 66:O) (O:C)	4.2	7326	(6) (O:C)	2.9	3168		3.9	6961
_O			_O	3.0	3169		3.0	6974
(O5) (6) ₄	4.5	7542		3.2	3177	(N ₃ 65) (O:C)	3.9	6980
(O5) (O:N ₂ 6:O)		7554		2.7	3182	(N ₃ 65) (O:N)	4.0	6993
(O66:O)	4.0	7671			3259	_O		
(O:ON5:C) (6) ₂ (O:N)	4.3	7851	(6) (O:C) (O:C) (C:C)	4.2	3428	(N ₄ 65)	4.2	7080
_O			_O				4.0	7160
(S5) (O:C) ₂	4.0	8021	(6) (O:N)	3.8	3457	(N ₄ 65:O)	3.9	7197
_O			(6) (O:N)	3.9	3484	(O:N ₄ 65:O)	4.1	7261
(S5) (O:ON5:C) (6)	4.1	8067	_O	4.0	3538	(N ₄ 66)	4.0	7306
	4.1	8069		3.8	3578	(S5) (C:C)	4.0	7986

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(S5) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$)	3.9	8005		3.7	4148	(S5) (O:ON5:C) (6)	4.1	8073
(S5) (O:ON5:C) (6)	4.0	8071		3.7	4152	(SN5) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$)	4.1	8189
	4.0	8072	(66) (6)	3.7	4192	(SN5) (6)	3.8	8386
(SN65)	4.4	8267	(O:6 ₃ :O)	3.9	4358	(SeN ₂ 65) (6) ₂	4.5	8441
(SN6 ₃ :O)	4.0	8374		4.5	4802			
			(6 ₄)	4.2	4834			
				4.8	4919			
				4.6	4920	$\lambda_{\text{max.}}$: 275-275.5m μ		
$\lambda_{\text{max.}}$: 274-274.5m μ				4.7	4921			
				5.1	4935	(C:C)	3.7	75
(C:C) ₂	3.5	96		5.0	4936	(C:C) ₂	3.8	111
(C:C) ₃	4.5	160		5.1	4954		3.7	128
(C:C) ₃ (C:C) ₃	4.8	289		4.6	4965	(C:C) ₃	3.7	164
(N:C) (C:C)	4.5	410	(N6)	3.6	5365	(C:C) (C:C) ₂	4.8	264
(O:C)	2.0	616	(N6) ₂ (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) ₂	3.9	5437	(C:C) ₄ (C:C) ₂	5.0	290
	2.4	617				(N:C) ₂ (C:C) ₂	4.6	541
(O:C) (C:C)	4.0	754	(N66)	3.3	5744		4.6	542
(O:C) (C:C) ₂	4.0	788		3.4	5781	(O:C) (C:C)	3.3	718
	4.5	796	(N75:O) (N:C)	4.6	5924	(O:C) (C:C) (C:C)	4.1	950
(O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) (C:C)	4.3	1041	(N665)	4.6	5943	(O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) (C:C)	4.3	1046
(6)	3.3	1361	(N6 ₃)	4.3	5973			
	2.9	1363		4.6	5979	(O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) (N:C) (C:C) ₃	3.9	1189
	2.9	1409	(N ₂ 6)	3.7	6243			
	1613			3.6	6312	(O:N)	2.2	1273
	3.7	1662		3.9	6350			
	1736			3.9	6351	(6)	2.9	1375
(6) ₂	4.4	1880	(N ₂ 6:O)	4.0	6431		4.1	1411
	4.4	1891		3.7	6490		3.4	1550
	4.5	1955	(S:N ₂ 6:O)	3.8	6503		3.4	1561
(6) ₅	4.6	1973	(N ₂ 66:O) (O:N)	4.0	6609		3.3	1567
(6) (C:C)	4.3	2036		3.6	6749		3.3	1568
(6) ₂ (C:C) ₂	4.4	2104	(N ₃ 65)	3.8	6954		3.0	1570
(6) (O:C)	3.0	2690		4.0	6955		3.3	1584
	4.0	2747		4.0	6959		3.4	1716
	3.9	2751		3.9	6959			1741
	4.1	2824	(N ₃ 65) (O:N)	4.0	6962			1783
	4.1	2825		4.2	6992	(6) ₂	4.2	1923
(6) (O:C) (C:C)	4.1	2988	(N ₄ 65)	4.1	6996		2.8	1940
(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$)	3.0	3166		3.9	7062	(6) (C:C)	4.0	2035
		3262	(N ₄ 65:O)	3.9	7164	(6) ₂ (N:N)	3.8	2204
	2.7	3287		3.9	7198		3.9	2262
(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) ₂	3.0	3304		4.3	7205	(6) ₂ (N:C)	4.2	2499
	3.1	3313	(O:N ₄ 65:O)	4.3	7206		4.3	2518
(6) ₂ (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$) (C:C)	4.2	3375		4.0	7273	(6) ₂ (N:C) ₂	4.3	2545
				4.0	7274	(6) (N:C)	3.0	2645
(6) (O:N)	4.3	3568		3.9	7280	(6) (O:C)	4.0	2672
				4.0	7281		4.2	2729
(6) (O:N) ₂	3.5	3666	(N ₅ 65:O)	3.8	7389		4.0	2771
		3688	(O66) (6)	4.3	7649		4.1	2803
	4.2	3695	(O66:O)	4.0	7672		4.1	2822
(6) (O:N) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$)	4.0	3888	(O:ON5:C) (6) ₂	4.1	7839	(6) ₂ (O:C) ₂	4.2	2916
			(ON65) (O:N)	3.8	7905	(6) ₃ (O:C) ₂	4.3	2934
(O:6:O)	4.4	3987				(6) (O: $\overset{\text{O}}{\underset{\text{O}}{\text{C}}}$)	3.4	3171
(66)	3.7	4111	(ON65:O)	3.7	7937			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) (O:C) (C:C) O	4.3	3349	(N ₃ 5) (N6) (N ₄ 65)	4.5 3.9	6807 6898		4.3	2764
(6) (O:C) (O:C) (C:C) O	4.2	3427		4.3	7090		4.1	2765
	4.2	3429		3.9	7107		4.2	2778
	4.2	3433		3.9	7131		4.0	2821
	4.2	3434		4.0	7153	(6) (O:C) ₂		2836
(6) (O:C) (O:C) O N		3442	(N ₄ 65:O)	3.9	7196	(6) ₂ (O:C)		2841
(6) (O:N)	3.7	3460	(O:N ₄ 65:O)	3.9	7224	(6) (O:C) (C:C)	4.3	2904
(6) (O:N) O	3.7	3496	(O:N ₄ 66:O)	4.0	7272	(6) (O:C)	3.1	2947
(O:6:O)	4.3	3989	(O5) (O:C)	4.1	7329	O	3.3	3224
(7:O) (O:C) O	4.0	4063	(O6:O) (6) ₂	4.1	7437	(6) (O:C) ₂	4.2	3271
(7:O) (6)	4.3	4080	(ON5) (6) ₂	4.4	7623	O	3.2	3305
(7:O) (6) (C:C)	4.2	4085	(S5) (O:C) O	4.3	7793	(6) (O:C) (C:C)	4.3	3335
(66)	3.8	4098	(S5) (6) ₂ (O:C)	3.2	8006	O		
	3.9	4099	(S5) (6) (O:C) (C:C)	3.4	8009	(6) (O:N)	3.7	3495
	3.7	4102	(SN5)		8050	O	3.7	3541
	3.7	4130		4.0	8052		3.5	3608
	3.7	4136		4.0	8166		4.0	3632
	3.5	4141					4.0	3644
	3.7	4146	$\lambda_{\max.}: 276-276.5\mu$			(66)	3.7	4116
	4.178		(N:C) (C:C) ₂	4.4	507		4.0	4132
	4.196		(O:C) (C:C)	3.7	654	(66) ₂ (C:C) ₂	3.8	4215
(66) (O:C) (C:C)	3.7	4289		4.1	769	(66) (O:C) (C:C)	4.4	4242
	3.7	4321	(O:C) ₂ (C:C) ₂	4.5	917	(66) (6) (C:C)	4.6	4288
(66) (O:N)	4.2	4335	(O:C) (N:C) (C:C) ₂ O	4.3	1182	(66) (6) (C:C)	4.6	4371
(O:66:O)	4.0	4498	(O:N)			O	4.3	4416
(O:66:O) (C:C)	4.3	4517	O	1.3	1264	(O:66:O)	4.2	4473
(O:6 ₃ :O)		4771	(S:C)	4.1	1310	(6 ₃) (O:C) (O:C) O	4.5	4706
(6 ₄)	5.1	4958	(6)	4.1	1407	(6 ₃) (6)	4.3	4716
	4.6	4980		3.0	1407	(O:6 ₃ :O)	4.4	4815
	4.7	5003		4.4	1538		4.5	4826
	4.7	5004		3.3	1552		4.6	4828
(N6) ₂	4.0	5375			1556		4.6	4829
(N6) ₂ (6) (C:C) ₂		5467			1557	(6 ₄)	5.0	5002
(N6:C)	3.3	5494		3.1	1599	(6 ₅)	4.8	5090
(O:N65:N65:O)	4.7	5632		3.4	1604	(N5) (O:C) O	4.3	5204
(N66)	3.7	5658		3.8	1663	(N6)	3.8	5310
	3.7	5665		3.0	1664		3.8	5312
	4.4	5711	(6) ₃	3.4	1823		4.4	5334
(N66:S)		5914	(6) (C:C)	4.4	1960	(N6) ₂ (O:C) ₂ O	4.0	5438
		5916	(6) (N:C)	4.2	2029			
(N75:O) (O:C) O	4.5	5926		4.3	2482			
				4.3	2491	(N6) (6)	4.1	5439
(N6 ₃)	4.6	6001	(6) ₂ (N:C)	4.3	2513	(N66)	3.7	5657
(N26)		6205	(6) ₂ (N:C) ₂	4.4	2546		3.5	5667
	3.8	6326	(6) ₄ (N:C) ₂	4.5	2572		3.2	5731
(N26:O)	3.8	6442	(6) ₂ (N:C) (C:C)	4.3	2603		3.7	5795
	3.6	6462	(6) (N:C)	3.2	2618	(N66:O)	3.6	5890
		6511		3.1	2620		3.6	5891
(S:N26:S)	4.2	6629	(6) (O:C)	4.1	2727	(N6 ₃)	4.6	6009
(N26 ₃)	4.5	6790		4.1	2737	(N6 ₄)	4.8	6055
				3.9	2745	(N26)	3.5	6166

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.0	6186		2.8	3281		4.0	7385
	3.7	6268		2.9	3310		4.0	7386
(N ₂ 6:O)	3.7	6436	(6) (O:C) (O:C) (C:C)	4.1	3430	(O5) (O:C)	4.2	7436
(N ₂ 6:S)	4.4	6548	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(O5) (6) ₂	4.3	7513
(O:N ₂ 6:O)	3.8	6587	(6) ₂ (O:N)	4.2	3753	(O6:O)	4.1	7595
(N ₂ 66)	3.5	6660	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(O65) (6) ₂	4.6	7632
(N ₂ 6 ₃)	4.5	6791	(7:O) (6)	4.2	4075	(S5) (C:C)	4.0	7988
	4.5	6796	(66)	3.7	4112	(S5) ₂ (6) ₂ (N:C) ₂	4.3	8046
	4.4	6797		3.8	4127	(S665)	4.3	8137
(N ₂ 6 ₃ :O)	4.3	6829		3.8	4180			
(N ₄ 65)	4.2	7089			4217			
(O:N ₄ 65:O)	3.9	7259	(66) (O:N)	4.2	4334	$\lambda_{\text{max.}}: 278-278.5\mu$		
(O66) (6)	4.3	7651	(66) (6)	4.6	4368	(N:C) ₂ (C:C)	4.4	540
(ON65)	3.6	7900	(66) (6) (N:N)	4.1	4378	(O:C) (C:C)	4.1	755
(ON ₃ 65) (6)	4.3	7952	(O:66:O) (O:C)	4.2	4520	(O:C) ₂ (C:C)	3.1	1112
(S65) (O:C)	4.2	8110	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	3.3	1123
(SN65)	4.3	8275	(6 ₄)	5.4	4934	(O:N)	1.0	1268
				4.7	4941	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	1.7	1271
				4.9	4990	(6)	3.4	1362
				4.6	4996		3.4	1549
$\lambda_{\text{max.}}: 277-277.5\mu$			(6 ₄) (O:C)	4.8	5027		3.3	1587
none	2.6	50	(6 ₆)	4.8	5109		3.1	1589
(O:C)	1.2	590	(6 ₆ :O)	3.9	5136		3.3	1595
(O:C) (C:C)	4.3	726	(6 ₇)	5.2	5148		2.7	1600
(O:C) (C:C) ₂	4.4	808	(N65)	3.9	5560		4.0	1678
	3.5	819	(N66)	3.7	5794			1723
(O:C) (C:C)		1056	(N75:O) (N:C)	4.6	5923		3.4	1778
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(N6 ₄)	4.7	6062		3.5	1847
(O:C) (C:C) ₂	4.0	1083	(N ₂ 6)	3.9	6195	(6) ₂	4.0	1879
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$					6196			1883
(O:N)	1.3	1263		3.7	6245		4.4	1929
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$				3.7	6248		4.0	2070
(6)	3.2	1572		4.0	6281	(6) ₂ (C:C)	3.8	2089
	3.0	1672		4.0	6282		4.3	2438
	2.7	1729	(N ₂ 6:O) (6)	3.9	6517	(6) (N:C)	4.5	2543
(6) ₂	3.8	1903	(N ₂ 5:S)	4.3	6542	(6) ₂ (N:C) ₂	4.3	2570
	3.3	1926		4.2	6551	(6) ₄ (N:C) ₂		2628
	4.4	1928	(O:N ₂ 6:O)	3.8	6574	(6) (N:C)	3.0	2648
	4.5	1930	(S:N ₂ 6:S)	4.2	6626	(6) (O:C)	2.0	2681
(6) ₄ (N:C) ₂	4.3	2569	(N ₂ 6 ₅)	3.7	6633		3.0	2682
(6) (O:C)	4.2	2669	(N ₂ 6 ₃)	4.9	6817		3.1	2684
	4.2	2734	(N ₃ 6)	4.4	6929		4.1	2780
	4.2	2736	(N ₃ 6 ₃) (O:C)	4.1	7013		4.1	2781
	4.1	2743	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$			(6) ₂ (O:C) ₂	4.3	2913
	4.0	2744	(N ₄ 5) (N:N)	4.1	7031	(6) (O:C) (C:C)	4.1	2956
(6) (O:C)	3.9	2758		4.1	7032		4.4	2967
	4.2	2790		4.3	7033		4.0	2980
	4.0	2796		4.0	7034	(6) ₂ (O:C) (C:C)	4.2	3058
(6) (O:C) (C:C)	3.9	3005		4.2	7035	(6) (O:C)	3.5	3248
(6) (O:C)	3.3	3233	(N ₄ 65:O)	4.1	7185	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	2.9	3276
$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$	3.4	3240		3.9	7209	(6) (O:C) (C:C)	4.1	3359
	3.2	3245	(O:N ₄ 65:O)	3.9	7250	$\begin{smallmatrix} \text{O} \\ \end{smallmatrix}$		
	3.2	3252	(N ₅ 65:O)	3.4	7384			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂ (O:C)(C:C) O	4.2	3383	(N ₂ 6)		6182			1831
(6)(O:N)	4.0	3450		3.7	6314	(6) ₂	4.4	1921
(6)(O:N) O	4.0	3573	(N ₂ 6:O)	3.8	6433	(6) ₂ (C:C)	3.8	2087
	3.8	3575		4.0	6452	(6) ₂ (N:C)	4.4	2515
	3.4	3663		3.8	6477	(6) ₂ (N:C) ₂	4.5	2556
(O:6:O)	3.2	3946	(N ₂ 6:S)	4.1	6486	(6)(O:C)	3.0	2683
	4.2	3992	(O:N ₂ 6:O)	4.3	6536		3.2	2756
(66)	3.8	4110	(S:N ₂ 6:O)	3.7	6588		4.0	2782
	3.7	4206	(N ₂ 65)	4.1	6608	(6)(O:C)(C:C)	4.3	2982
(66)(O:C)(C:C) O	4.1	4323	(N ₂ 66)(O:N) O	3.6	6641	(6)(O:C)(C:C) ₂	3.5	3014
(66)(O:N) O	4.4	4351	(N ₂ 66:O)(O:N) O	4.1	6695	(6)(O:C) O	2.9	3172
(66)(6)(N:N)	4.2	4386		4.0	6754		3.0	3173
	4.2	4387	(N ₂ 665)				3.0	3223
	4.0	4400	(N ₂ 63)	4.4	6770		3.0	3232
(O:66:O)	4.2	4474	(N ₃ 6)	4.8	6816		3.5	3253
(75)	4.8	4540	(N ₄ 65)	4.4	6907	(6)(O:C) ₂ O		3303
(75)(O:N) O	4.4	4589	(N ₄ 65:O)	4.2	7154			3315
			(O:N ₄ 65:O)	3.9	7223	(6)(O:C)(C:C) O	4.2	3342
(75)(6)(N:N)	4.3	4595		4.2	7241	(6)(O:N) O	4.1	3362
(6655:O)	4.6	4873		3.9	7265		3.7	3504
	4.6	4874	(O5)(N:C)	3.9	7267		3.8	3596
(6 ₄)	5.1	4906	(O6:O)		7421	(6)(O:N)(O:C) O O	3.7	3637
	4.9	4913	(O66:O)(6)	3.8	7597			3895
	5.3	4943			7712	(6)(S:C:N)		3912
	4.5	4976	(O:ON5:C)(6) ₂ (O:N) ₂ O	7715		(66)	3.8	4212
	4.6	4984	(ON65)	4.0	7895		3.9	4219
	4.7	4993	(S5)(O:O5:C)(6)	4.1	7902	(66)(O:C) O	3.8	4297
	4.7	4997	(SN65)	4.2	8063	(66)(6)(N:N)	4.1	4384
(N5)(O:C) ₂ O	4.3	5219		4.2	8258		3.8	4408
(N6)	3.6	5296	(SN ₂ 5)(6)	4.2	8273	(66)(6)(O:C)(C:C) O	4.4	4446
	3.7	5301	(Se665)(O:N) O	3.8	8387			4512
	4.2	5367		4.0	8419	(O:66:O)		4536
(N6)(C:C)	3.7	5393				(75)	4.8	4550
	3.4	5394	λ _{max.} : 279-279.5μ				4.6	4713
(N6:O)	4.3	5532	(O:C)	1.2	591	(6 ₃)(6)	4.9	4989
(N65)	3.7	5552		1.4	594	(6 ₄)	4.9	4992
	3.7	5554		1.4	599	(6 ₄)(N:C)	4.7	5015
(O:N65:N65:O)(O:C) ₂			(O:C) ₂	1.9	627	(N6)(6) ₂	4.5	5447
	4.3	5650	(O:C) O	2.6	1009		4.5	5448
(N66)	3.5	5656	(O:C) ₂ (C:C) ₃ O	4.3	1138	(N6:O)	3.9	5543
	4.8	5715	(6)			(N66)	3.6	5787
	4.0	5760		2.9	1377		3.7	5789
	3.6	5782		3.2	1582	(N66)(O:N) O	4.4	5814
	3.7	5793		3.3	1586			
(N66:C)(C:6:N)	4.0	5853		3.2	1591	(N6 ₃)	4.6	5991
(N66:S)	4.4	5915			1612	(N6 ₄)	4.5	6066
(N75:O)(O:C) O	4.5	5925		3.2	1781	(N ₂ 6)	2.5	6134
(N6 ₃)	4.7	5989		3.4	1821	(N ₂ 6)(N:N:N) ₂	3.6	6309
(N6 ₄)	4.6	6054		3.4	1826	(N ₂ 6:S)	4.4	6564

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(S:N ₂ 6:O)	4.2	6615	(6) ₂	3.6	1919	(66)(O:C)	4.0	4267
(N ₂ 65)	3.8	6632		4.2	1923	(66)(O:C)(C:C)	4.5	4290
(N ₂ 66:O)(O:N) O	4.1	6752	(6) ₃	4.4	1959		4.7	4291
(N ₂ 6 ₃)	4.8	6815	(6) ₂ (C:C) ₂	4.0	2098	(66)(O:C) ₂ (C:C)	4.3	4295
	4.4	6822	(6)(N:C)	4.1	2456	(66)(6)	4.0	4357
(N ₄ 65)	4.0	7101		3.9	2462		4.0	4365
(N ₄ 65:O)	3.9	7203	(6) ₄ (N:C) ₂	4.3	2578	(O:66:O)	4.2	4471
(O66:O)	4.0	7677	(6)(O:C)	3.0	2690	(75)	4.6	4530
(O:ON5:C)(6) ₂	4.2	7835		3.0	2692		4.8	4556
(O:ON5:C)(6) ₂ (O:N) O	4.0	7848		3.0	2715		4.8	4564
		7867		4.0	2769	(75)(O:C)	4.9	4577
(ON ₂ 65)	4.0	7945		3.1	2811	O		
(S5)(O:C) O	3.6	8008	(6) ₂ (O:C)	2.9	2816	(665:C)	4.2	4603
(S6 ₃ 5)	4.8	8158		3.7	2885	(665:O)(O:N) ₃ O	4.5	4619
(SN5)	4.1	8168	(6) ₄ (O:C) ₃	3.9	2887	(6 ₃)	3.8	4666
(SN65)	4.1	8265	(6)(O:C)(C:C)	4.5	2942	(O:6 ₃ :O)	4.1	4738
				4.3	2961		4.1	4798
			(6) ₂ (O:C)(C:C) ₃	4.3	2969		4.2	4800
λ _{max.} : 280-280.5μ			(6)(O:C) N	4.0	3105		4.2	4823
					3141		4.5	4825
(C:C) ₃	4.4	171	(6) ₂ (O:C)(C:C) N	4.3	3159	(6 ₄)	4.6	4942
(C:C) ₄	2.6	193					4.3	4981
	2.5	194	(6)(O:C) O	4.2	3214		4.5	4985
(C:C) ₁₁	4.3	220		3.5	3243		4.9	4987
(N:C)(C:C)	4.4	424		3.4	3250	(6 ₄)(C:C)	4.4	5013
(N:C)(C:C) ₂		508		2.9	3277	(6 ₅)	4.8	5070
(O:C)	1.3	602		2.9	3297	(N5)(O:C) ₂ O	4.3	5214
	1.6	609	(6)(O:C) ₂ O	3.1	3308			
(O:C) ₂	1.3	625		3.1	3312	(N6)	3.8	5317
(O:C)(C:C)	4.0	717	(6) ₂ (O:C) ₂ O	3.3	3327	(N6) ₂	4.1	5374
	4.0	756		4.5	3329			5382
(O:C)(C:C) ₂	4.2	794	(6)(O:C) C1		3447	(N6)(6)(C:C)		5455
	3.9	812						5459
	4.3	828	(6)(O:N) ₂	4.1	3478	(N65)	3.8	5564
(O:N) O	1.4	1265	(6)(O:N) O	3.0	3480	(N65)(O:66:O)	3.9	5588
	1.7	1272		4.7	3493		4.1	5590
(S:C)	1.2	1313		4.2	3500		4.2	5591
(6)	3.3	1396		3.8	3554	(N66)	3.7	5757
	3.2	1398		4.0	3631	(N66:O)	3.7	5871
	2.7	1404	(7:O)(6)	4.1	4076		3.6	5873
	3.0	1442		4.1	4079		3.8	5889
	4.1	1459	(65:C)(6)	4.3	4096	(N665)(O:N)	4.0	5951
	3.2	1569	(66)	3.8	4108	(N6 ₃)	4.7	5985
		1574		3.7	4113	(N6 ₃ 5)	4.6	6047
	3.3	1575		3.8	4115	(N6 ₄)	4.2	6050
	3.2	1590		3.8	4134		4.7	6051
	3.2	1598			4138	(N ₂ 6)		6198
	3.5	1611		3.8	4151			6204
	4.4	1688			4159			6206
	3.3	1784		3.9	4176			6207
	3.2	1793		3.9	4190		3.7	6214
	3.5	1845		3.7	4207		3.9	6288

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) (C:C)	2.8	1985		3.5	3792		4.3	2759
(6) ₂ (C:C)	4.4	2086	(N6 ₃) (6)	4.8	6032		4.3	2763
(6) (N:C)	4.4	2416	(N ₂ 6)	3.3	6174		4.0	2772
	4.3	2436			6208		3.3	2788
(6) (N:C)	3.1	2619		3.9	6287	(6) ₂ (O:C)	4.2	2880
(6) (O:C)	3.1	2703			6335		4.0	2890
	3.1	2704	(N ₂ 6:O)	3.5	6403	(6) (O:C)	3.0	3280
	3.5	2748		3.9	6438			
	3.8	2752		3.9	6499	(6) ₂ (O:C) (C:C)	4.3	3381
	3.3	2787	(O:N ₂ 6:O)	3.8	6567			
	3.3	2789	(N ₂ 6 ₅)	3.7	6640	(6) (O:N)	3.7	3539
(6) ₂ (O:C)		2895	(N ₃ 5) (6)	4.0	6879			
(6) (O:C) (C:C)	3.2	2954	(N ₄ 6 ₅)	4.3	7092	(6) (O:N) (C:C)		3785
(6) (O:C)	3.7	3285		4.0	7100			
				4.0	7159	(6) (O:C) (O:N) (N:N)	4.2	3883
(6) (O:C) ₂	3.0	3309		3.9	7225			
			(N ₅ 6 ₅)	4.0	7378	(7:O) (6)	4.0	4065
(6) (O:C) (C:C)	4.3	3343	(O5)	4.2	7405	(66)	3.8	4104
			(O5) (O:C)	4.5	7439		3.9	4183
(6) ₂ (O:C) (C:C)	4.1	3379	(O5) (O:C) (C:C) ₄	3.9	7449		3.8	4191
			(O5) (6) ₄	4.5	7540		4.0	4194
(6) (O:N)	3.8	3453	(O:ON5:C) (6) ₂	4.2	7841		3.8	4214
(6) (O:N)	3.7	3497	(O:ON5:C) (6) ₂ (O:N)	4.1	7868	(66) (C:C)	4.1	4235
	3.5	3542				(66) (O:C) (C:C) ₂	4.4	4293
	3.6	3576	(ON6 ₅) (O:N)	4.0	7904	(66) (6)	4.0	4364
(6) (O:N) ₂		3701				(66) (6) (N:N)	4.3	4412
			(S66 ₅)	4.2	8135	(66) (6) (O:C)	4.0	4438
(O:6:O)		3982	(SN6 ₅)	4.0	8263		4.0	4440
	4.1	3999	(Se66 ₅)	4.3	8414	(66) (6) (O:C) ₂	4.0	4443
(66)	3.8	4107	(Se66 ₅) (O:N)	4.4	8418			
	3.8	4135				(75)	4.8	4538
	3.6	4165					4.7	4543
	3.4	4170					4.6	4552
	3.4	4171	λ _{max.} : 283-283.5μ				4.4	4810
	4.0	4175	none	2.5	53	(O:6 ₃ :O)	4.9	4914
(66) ₂	4.1	4220	(C:C) ₃	4.5	172	(6 ₄)	4.9	4915
	4.1	4226	(N:C) (C:C)	4.1	413		4.9	4917
(66) ₂ (C:C) ₂	4.6	4243	(O:C) (C:C) ₂	4.4	815		4.8	4918
(66) (6)	4.0	4366	(O:C) ₂ (C:C)	4.1	915	(6 ₄) (O:C)	4.5	5033
(O:66:O)	4.3	4506	(O:N)	1.4	1269			
(6655)	4.7	4870				(6 ₇)	5.0	5155
(6 ₄)	4.9	4995	(6)	3.0	1443	(N5) (O:C)	4.3	5203
	4.9	4998			1606			
(N6)	4.0	5329		3.5	1623	(N5) (O:C) ₂	4.1	5218
	4.2	5342		3.3	1780			
	4.2	5343			1830	(N5) (O:C) (O:C)	4.1	5221
(N6) (C:C)	3.6	5396	(6) ₂	4.0	1916			
(N6:O)	3.8	5534	(6) ₃	4.0	1961	(N6)	3.8	5298
	3.8	5538		3.9	1963	(N6 ₅)	4.0	5567
(N6 ₅) (O:6:O)	4.1	5586		3.9	1965	(N6 ₅) (O:66:O)	4.3	5589
(O:N6 ₅ :N6 ₅ :O)	4.3	5628	(6) (C:C) ₂	4.5	2058	(N66)	3.8	5694
(N66)	3.7	5745	(6) (N:C)	4.4	2434		3.9	5748
	3.7	5790	(6) ₂ (N:C) (C:C)	4.2	2639		3.8	5749
	3.6	3791	(6) (O:C)	3.1	2694		3.5	5766

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	3.5	5783		3.3	1472		4.5	4549
(N66) (O:N) O	4.3	5815		3.2	1508	(75) (O:C) O	4.7	4584
(N66) (6) (C:C)	4.4	5828		3.5	1560	(6 ₃) (6)	4.9	4718
(N ₂ 6)	3.6	6203			1616	(O:6 ₃ :O)	4.2	4801
(N ₂ 6:S)	4.4	6550		3.7	1622	(6 ₃ 5:O)	4.9	4897
	4.3	6562			1791	(6 ₄)	4.8	4950
(S:N ₂ 6:O)		6620			1792		4.8	4956
(S:N ₂ 6:S)	4.3	6624			1818		4.4	4964
	4.2	6628		3.2	1822	(O:6 ₄ :O)	4.5	5055
(N ₂ 65)	3.9	6642	(6) ₅	4.5	1974	(6 ₅)	4.7	5073
(N ₂ 66) (O:N) O	4.3	6705	(6) (C:C)	3.0	1987	(6 ₅ :O)	4.6	5101
			(6) (N:C)	4.0	2458	(N6) (C:C)		5398
(N ₂ 6 ₃ 5)	4.4	6838	(6) (O:C)	4.2	2662	(N6:O)	4.1	5540
(N ₄ 65)	4.2	7076		4.3	2678	(N65) (O:C) O	4.0	5580
	3.9	7106		3.4	2686			
	3.9	7124		3.2	2688	(N66)	3.5	5774
	3.9	7125		3.4	2699		3.7	5784
	4.5	7155		4.3	2714	(N665) (O:N) ₂ O	4.3	5957
	4.1	7157		3.9	2742			
	4.0	7165	(6) ₂ (O:C)	4.3	2903	(N665) (6)	4.7	5959
(O:N ₄ 65:O)	3.9	7251	(6) ₂ (O:C) (C:C)	4.0	3071	(N6 ₃)	4.4	5993
O: (O:N ₄ 65:O)	4.1	7292	(6) (O:C) O	4.1	3192	(N ₂ 6)	3.9	6177
O: (O:N ₄ 66:O)	3.9	7348	(6) (O:C) ₂ O	3.0	3279	(N ₂ 6:O)		6510
(O6:O)	3.9	7593	(6) (O:C) (C:C) O	3.2	3311	(N ₂ 6:S)	4.6	6547
	3.8	7596		4.3	3358	(N ₂ 66)	3.9	6672
(O:ON5:C) (6) ₂ (O:N) O	3.9	7851	(6) ₂ (O:C) (C:C) O	4.3	3360	(N ₂ 665)	4.4	6766
				4.3	3376	(N ₃ 5) (6)	4.1	6880
(S5) (O:N) ₂ O	3.4	8029	(6) (O:N)	4.2	3377	(N ₃ 665)	4.0	7012
				4.1	3451	(N ₄ 65)	4.0	7102
(S5) (6)	4.0	8032	(6) (O:N) O	3.7	3464		3.9	7105
(SN5)		8170		3.9	3520	(N ₄ 65:O)	3.8	7123
(SN65)	3.2	8250	(O:6:N)				4.0	7192
	4.4	8257	(66)	4.2	4024	(O5) (O:C)	4.0	7194
				3.9	4120	(O6:O) (O:C)	4.2	7438
				3.9	4122		3.7	7613
				3.5	4172	(O66:O) (6)	4.0	7692
				3.9	4185	(O:ON5:C) (6)	4.1	7796
				3.8	4198	(O:ON5:C) (6) ₂	4.2	7804
				4.0	4225	(O:ON5:C) (6) ₂ (O:N) O	4.1	7862
(C:C) ₃	4.7	165	(66) ₂	4.2	4231			
	4.4	168	(66) (C:C)	4.2	4234	(S5) (6) (O:C)		8049
	4.5	176		4.0	4269			
(C:C) ₃		236	(66) (O:C)	3.7	4274			
(C:C) ₆	5.6	240		3.8	4276			
(N:C) (C:C)	4.2	411			4301			
(O:C) ₂	1.1	622	(66) (O:C) O					
	2.1	626						
(O:C) (C:C)	4.1	648	(66) ₂ (6)	4.3	4370	(N:C) (C:C)	3.9	398
(O:C) ₂ (C:C) ₂ (C:C) ₇	4.6	1156	(66) (6) (O:C)	4.0	4427	(N:C) (C:C) ₂	4.1	498
			(66) (6) (O:C) O	3.8	4436	(O:C)	1.2	606
(O:N) O	1.7	1267		4.1	4442		1.5	618
			(75)	4.9	4532	(O:C) ₂	1.7	623
(6)		1415		4.7	4534	(O:C) (C:C)	3.8	713
						(O:C) (C:C) ₂	4.3	797

$\lambda_{\max.}$: 284-284.5μ

$\lambda_{\max.}$: 285-285.5μ

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.2	806	(66) (6)	4.0	4355	(S:SN5:O) (S5)	3.9	8244
	4.4	807	(665:C)	4.4	4604	(SN65)	3.2	8249
(O:C) (C:C) ₃	4.1	850	(O:6 ₃ :O)		4830	(SN65) (O:N)	4.0	8276
(O:C) (C:C) ₆	4.1	869	(6 ₃ 5)	4.2	4884			
(O:C) ₂ (C:C) ₂	4.3	1125		4.4	4886			
O			(6 ₄)	4.8	4916	(SeN65:O)	3.6	8433
(O:N)	2.1	1266		4.8	4986			
O			(6 ₄) (O:C)	4.8	5032			
(6)	3.2	1379	O	4.7	5036			
	4.3	1401	(6 ₇)	4.7	5145	λ _{max.} : 286-286.5mμ		
	4.0	1439	(N6:O)	4.1	5507	none	2.5	52
	4.1	1457	(O:N65:N65:O)	4.4	5616	(C:C) ₂	3.9	141
	3.1	1469		4.3	5623	(C:C) ₃	2.3	237
		1509		4.3	5639	(N:C) (C:C) ₂	4.3	576
	3.3	1629	(N66)	3.8	5705	(O:C) ₂	1.8	631
		1634		3.5	5768	(O:C) ₂ (C:C) ₂	4.0	1135
		1637	(N66) (6) (O:N) ₂	4.0	5844	O		
	3.1	1854	O			(O:C) (C:C) ₃	3.4	1153
(6) ₂	4.4	1882	(N66:O)	3.5	5872	O		
(6) ₂ (C:C)	4.3	2076	(N665)	4.1	5942	(O:C) (N:C) (C:C) ₂	4.2	1186
	3.7	2088	(N6 ₃)	4.8	6000	O		
(6) ₂ (C:C) ₄	5.1	2140	(N6 ₃) (O:N)	4.1	6029	(O:C) (N:C) (C:C) ₃	4.0	1190
(6) (N:N:N)		2409	O			O		
(6) ₂ (N:C)	4.2	2500	(N ₂ 6)	3.8	6285	(6)	3.2	1478
	4.2	2523	(N ₂ 6) (N:N:N) ₂	3.9	6362		3.1	1491
(6) (O:C)	3.1	2691	(N ₂ 6:O)	3.3	6402			1594
	3.9	2776	(N ₂ 6:O) (6) (N:C)	3.5	6529		3.6	1617
	4.2	2791	(N ₂ 6:S)	4.5	6535		3.5	1618
	3.8	2797		4.0	6539		3.5	1698
(6) ₂ (O:C)	4.3	2888		4.4	6541			1723
	4.2	2889	(O:N ₂ 6:O) (6)		6607	(6) ₂	3.8	1904
(6) ₂ (O:C) ₂	4.3	2929	(N ₂ 65)	3.7	6630		3.8	1906
(6) (O:C) (C:C)	4.4	2964		3.6	6631		4.4	1944
	4.4	2981		3.8	6636	(6) (N:C)	4.4	2449
(6) (O:C)	3.5	3220	(N ₂ 66)	3.3	6684	(6) (O:C)	4.3	2676
O	3.4	3244		3.3	6685			2680
	3.5	3255		3.4	6686		3.2	2700
	4.2	3266	(N ₂ 66) (O:N)	4.2	6704		3.0	2702
(6) (O:C) (C:C)	4.4	3348	O				4.2	2766
O			(N ₂ 66) (6) (C:C)	4.4	6709	(6) (O:C) (C:C)	4.3	2960
(6) (O:N)	4.0	3486	(N ₂ 665)	4.4	6777	(6) ₂ (O:C) (C:C)	4.2	3057
O	3.6	3543	(N ₄ 65)	4.3	7133	(6) (O:C) (N:N)	4.5	3160
(6) (O:N) (C:C)		3798	(N ₄ 65:O)	4.1	7186	N		
O				4.3	7240	(6) (O:C) (C:C)	4.4	3340
(66)	3.8	4103	(O:N ₄ 65:O)	4.1	7282	O		
	3.9	4109		3.9	7289	(6) (O:N)	3.9	3449
	3.8	4119	(N ₄ 66:O)		7320		3.8	3452
	3.5	4163	O:	3.8	7345	(6) (O:N)	3.9	3551
	3.5	4164	(O:N ₄ 66:O)	3.8	7346	O	3.9	3553
	3.9	4216	(O:N ₅ 65:O)	3.7	7395			3565
(66) ₂	4.1	4224	(O66:O) (6)	4.0	7698			3566
	4.1	4227	(O:ON5:C) (6) ₂ (O:N)	4.0	7873		3.7	3657
	4.0	4228	O			(6) ₂ (O:N) (N:N)	4.1	3816
(66) (N:C)	4.0	4251	(S5) ₂ (O:C) (C:C)	3.9	8004	O		

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) (O:N) (O:C)	4.3	3865	(05) (O:C)	4.4	7469	(6 ₄)	4.7	4913
$\begin{array}{c} \text{O} \\ \\ (6) (O:N) (O:C) \\ \quad \\ \text{O} \quad \text{O} \end{array}$		3893	(O:ON5:C) (6) ₂	3.9	7832		4.9	4922
(O:6:O)		3995	(ON65) (6)	4.1	7919		4.8	4940
(66)	4.0	4106	(S5) (O:C) ₂	4.1	8016		4.9	4960
		4137	$\begin{array}{c} \text{O} \\ \\ (S665) \end{array}$	4.2	8133		4.4	4977
(66) (O:C)	3.9	4303	(S:SN5: $\begin{array}{c} \text{O} \\ \\ \text{C} \end{array}$) (S65)	4.0	8246		4.9	4990
$\begin{array}{c} \text{O} \\ \\ (66) (O:C) \end{array}$	3.9	4306	(SN65)	4.4	8268	(6 ₄) (O:C)	4.6	5022
	3.9	4307				(6 ₄) (O: $\begin{array}{c} \text{C} \\ \\ \text{O} \end{array}$)	4.7	5037
(66) (6)	4.0	4356						
(66) (6) (C:C)	4.6	4371				(6 ₅)	4.6	5082
(66) (6) (O:C)	4.1	4426	$\lambda_{\text{max.}}: 287-287.5\mu$			(6 ₇)	4.4	5153
	4.2	4433				(N6) (C:C)	3.5	5395
(O:66:O)	4.1	4485	(C:C) ₃	3.8	154	(N6:O)	3.9	5542
(765)	4.8	4865	(C:C:C)	4.8	296	(N65) (O:66:O)	4.3	5592
(6 ₃ 5)	3.9	4876	(N:N:N)	1.3	308	(O:N65:C)	3.8	5608
(6 ₃ 5:N)	4.5	4895	(O:C) (C:C)	4.3	719	(N66)	3.6	5751
(6 ₄)	5.1	4905	(O:C) (C:C) ₂	4.4	783	(N ₂ 6)	4.0	6194
	4.9	4939		4.4	827		3.7	6233
	4.8	4957	(O:C) (N:C) (C:C)	4.1	972		3.9	6296
	4.8	4996	(6)	4.1	1458	(N ₂ 6) (6)	3.9	6375
	4.8	4997		3.3	1474	(O:N ₂ 6:O)	3.8	6599
(6 ₄) (O:C)	4.8	5038			1507	(N ₂ 665)	4.2	6773
$\begin{array}{c} \text{O} \\ \\ (6_4) (O:C) \end{array}$					1545	(N ₂ 6 ₃) (6)	4.3	6827
(6 ₄) (N:C:O)	4.9	5042			1554	(N ₃ 65) (O:N)	3.9	6983
(6 ₅)	4.8	5068			1786	$\begin{array}{c} \text{O} \\ \\ (N_3 65) (O:N) \end{array}$		
	5.0	5069			1787	(N ₄ 65)	4.3	7132
(6 ₇)	4.9	5150	(6) ₂	4.3	1888	(N ₂ 65:O)	3.9	7217
(N6)	4.0	5284	(6) ₃ (C:C)	4.1	2121		4.0	7221
	3.8	5302	(6) (O:C)	4.0	2801		4.0	7247
(N6) (6)	4.0	5442	(6) (O:C) (C:C)	4.4	2965	(05) (O:C) ₂	4.4	7475
(N6) (N5)	4.2	5490		4.4	2966	$\begin{array}{c} \text{O} \\ \\ (05) (O:C)_2 \end{array}$		
(N66)	3.5	5664		4.4	2987	(06:O) (O: $\begin{array}{c} \text{C} \\ \\ \text{O} \end{array}$)	3.6	7615
(N66:S) (O:C)		5917		3.9	3008			
$\begin{array}{c} \text{O} \\ \\ (N66:S) (O:C) \end{array}$			(6) (O:C)	3.3	3209	(066:O)	4.2	7676
(N66:S) (6)		5918	$\begin{array}{c} \text{O} \\ \\ (6) (O:C) \end{array}$			(06 ₄)	3.9	7785
(N75) (N:C)	4.8	5921	(6) (O:N)	3.6	3548	(O:ON5:C) (6) ₂ (O:N)	4.1	7883
(O:N ₂ 5:C) (6)	4.0	6103	$\begin{array}{c} \text{O} \\ \\ (6) (O:N) \end{array}$					
	4.0	6104	(66)	3.8	4210	(S5) (O:C)	3.9	8007
	4.0	6105		4.0	4218	(O:SN5:C) (6)	4.2	8231
(N ₂ 6)	4.0	6152	(66) (O:C)		4275	(S:SN5: $\begin{array}{c} \text{O} \\ \\ \text{C} \end{array}$) (S5)	4.0	8245
	3.6	6170	(66) (O:C)	3.8	4300	(Se665)	4.0	8409
	3.3	6274	$\begin{array}{c} \text{O} \\ \\ (66) (O:C) \end{array}$					
	3.9	6284	(66) (6) (N:N)	4.1	4378			
(N ₂ 6:O)	3.2	6404	(75)	4.9	4548	$\lambda_{\text{max.}}: 288-288.5\mu$		
	3.9	6465		4.7	4558			
	3.9	6513		4.6	4565			
(N ₂ 6:S)	4.4	6555	(75) (O:C)	4.8	4576	(C:C) ₆	4.3	206
(S:N ₂ 6:S)	4.3	6625	$\begin{array}{c} \text{O} \\ \\ (75) (O:C) \end{array}$	5.0	4581	(O:C) (C:C) ₂	4.5	799
	4.2	6627	(665:C)	4.4	4605	(S:C)	4.1	1311
(N ₂ 66)	3.9	6688	(O:6 ₃ :O)	4.1	4818	(6)	3.3	1397
(N ₄ 65:O)	3.9	7193	(6655) (6) ₂	4.6	4872		4.2	1456
			(6 ₃ 5)	4.5	4875			1511

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂	4.4	1890		4.0	5281	(6) (O:C) (C:C) ₂	3.5	3013
(6) ₂ (C:C)	4.5	2066			5291	(6) ₂ (O:C) (C:C)		3082
(6) (N:N)	3.8	2151		4.5	5336	(6) (O:C)	4.3	3190
(6) (N:C) (C:C)		2591	(N6) (N5)	4.0	5492	O		3201
(6) (O:C)	3.1	2709	(N65) (O:6:O)	4.1	5584		4.2	3269
	4.0	2779	(N66) (O:N)		5813			3286
	3.9	2804	O				2.8	3290
(6) (O:C) (C:C)	4.4	3003	(N6 ₄)	5.0	6059	(6) (O:C) ₃		3322
(6) ₂ (O:C) (C:C)	4.2	3051		4.5	6063	O		
		3078	(N ₂ 6)	4.0	6246	(6) (O:N)	4.0	3607
		3079	(N ₂ 6:S)	4.0	6545	O	3.8	3658
		3083	(N ₂ 665)	4.2	6765	(66)	3.8	4114
(6) (O:C) ₂		3149		4.1	6775		3.7	4117
N			(N ₄ 65)	4.2	7075		4.0	4118
(6) (O:C) (C:C)	4.5	3154	(O:N ₄ 65:O)	4.2	7283	(66) (6) (O:C)	4.0	4441
N	4.5	3155	(O5) (6)	4.1	7512	O		
	4.5	3156	(O:O5:C) (6) ₂	4.2	7559	(76)	4.6	4555
(6) (O:C) ₂		3315	(O:O5:C) (6) ₃	3.5	7563		4.5	4567
O	3.3	3318	(O6:O) (O:C)	3.8	7609		4.6	4570
(6) (O:C) (C:C)	4.3	3361	(O6:O) (O:C)	3.6	7612	(O:6 ₃ :O)	4.3	4819
O	4.3	3363					3.9	4820
(6) ₂ (O:C) (C:C)	4.4	3380	(O66:S) (O:C)	4.0	7746		3.8	4821
O			O			(6 ₃ 5)	4.4	4877
(6) (O:N)	3.7	3536	(O:ON5:C) (6) ₂	4.2	7818	(6 ₃ 5) (O:C)	4.4	4890
O	3.8	3555		4.2	7820	N		
(O:6:O)	4.1	3976	(ON65)	4.4	7901	(6 ₄)	4.9	4924
	4.2	3979	(S65)	4.0	8104		4.9	4929
(66)	3.8	4105	(SN5) (O:C) ₂	3.6	8192		4.9	4930
	3.8	4184	O				4.7	4949
		4189	(S:SN5:O)	3.9	8237		4.9	4968
(66) ₂	4.1	4230	(S:SN5:C) (6)				4.8	4971
(66) (O:C)	3.8	4299	(S:SN5:O)	3.9	8239		4.9	4973
O			(S:SN5:C) (S5)				4.9	4992
(66) (O:N)	3.9	4348	(SN65) (6)	4.1	8284	(6 ₅)	4.7	5074
O							4.6	5088
(66) (6)	4.0	4353					4.5	5089
	4.0	4354	λ _{max.} : 289-289.5mμ			(6 ₆)	4.7	5131
(O:66:O)	4.1	4497				(N6)	4.1	5311
(75)	4.6	4560	(C:C) ₄	4.3	187		4.2	5359
(O:6 ₃ :O)	4.3	4822	(O:C) (C:C) ₂	4.4	807	(N6) ₂ (C:C)	3.9	5407
(6 ₃ 5)	4.3	4879		4.4	808	(N65)	3.6	5575
	4.5	4885	(S:C)	4.0	1312	(O:N65:N65:O)		5643
(6 ₄)	5.0	4927	(6)	3.5	1448	(N66) (N:N)	4.0	5810
	5.0	4931		3.3	1450	(N665)	4.2	5944
	5.0	4952			1702		4.1	5949
	4.8	4961		3.0	1829	(N6 ₄)	4.9	6058
	4.7	4982			1832		4.9	6065
	4.9	4988	(6) ₂	4.5	1947	(N ₂ 5) (6) ₄	4.6	6082
(6 ₄) (N:C)	4.8	5018	(6) (N:N)	4.2	2150	(N ₂ 6)	3.9	6178
	4.9	5019	(6) ₂ (N:C) ₂	4.6	2555		3.6	6219
(6 ₄) (O:N)	4.7	5041	(6) ₂ (O:C)	4.2	1877		4.1	6352
O				4.4	2883	(N ₂ 6:O)	3.7	6419
(6 ₅)	4.7	5081		4.1	2886	(N ₂ 65)	4.0	6639
(N6)	3.5	5270	(6) (O:C) (C:C)	3.5	2962	(N ₂ 66:O)	3.4	6731

absorbing chromophore	loge	no.	absorbing chromophore	loge	no.	absorbing chromophore	loge	no.
(N ₃ 65) (6)	3.9	7004			3080			5648
(N ₄ 65:O)	4.0	7222	(6) (O:C)	3.3	3221	(O:N65:N65:O) (O:N) ₂		5651
(O:N ₄ 65:O)	4.0	7271	_O	3.4	3247	_O		5652
(N ₅ 65)	3.9	7379			3261	(N66) ₂	4.1	5807
(O6:O)	4.0	7604			3274	(N66) (N:N)	3.9	5809
(O665)		7751	(6) (O:N)	3.7	3659	(N665)	4.2	5947
(S5) (N:C) (C:C)	4.2	7993	_O			(N6 ₄)	4.8	6056
(S65)	4.4	8105	(6) (O:N) ₂	4.0	3694	(N6 ₄ 5)	4.7	6064
(SN5) (O:C)	3.6	8186	_O			(S:N ₂ 5: _O C) (6)	4.0	6127
_O			(6) (O:N) (O:C)	4.1	3872	(N ₂ 6)	3.4	6154
(SN665) (6)	4.2	8353	_O				3.9	6232
(Se665)	4.2	8410	(7:O) (O:C) (C:C)	4.2	4064		3.4	6249
			_O			(N ₂ 6:O)	3.7	6398
			(7:O) (6) (O:N) (O:C) (C:C)	4.5	4093		3.8	6407
$\lambda_{\max.}$: 290-290.5m μ			_O _O				4.1	6437
			(66)		4140	(N ₂ 6:S)	4.3	6560
none	3.4	17		3.7	4143	(O:N ₂ 6:O)	3.7	6570
(C:C) ₄		183		3.6	4153		3.8	6582
(N:C) (C:C) ₂	4.3	483	(66) (O:N)	4.0	4350	(O:N ₂ 6:O) (O:C)	4.1	6603
		493	_O			_O		
(N:C) (C:C) (C:C)	4.5	558	(O:66:N:N)	4.0	4527	(N ₂ 65)	3.7	6645
(O:C)	1.3	587	(665:665)	5.1	4602	(N ₂ 66) (O:N)	3.7	6699
	1.7	611	(6 ₃)	4.0	4626	_O		
(O:C) (C:C) ₂	4.2	793	(6 ₃) (6) (O:C)	4.6	4726	(N ₂ 665)	4.2	6774
		795	_N			(N ₂ 6 ₃ 5)	4.5	6839
	4.1	805	(6 ₃ 5)	4.5	4878	(N ₃ 65) (O:N)	3.9	6985
	4.1	813		4.6	4880	_O	4.0	6989
(O:C) (O:C) (C:C)	4.2	1193		4.5	4881	(N ₄ 65)	4.1	7077
_O			(6 ₃ 5) (O:C)	4.3	4891		4.1	7082
(6)	3.5	1460	_O				4.2	7084
	3.3	1475	(6 ₄)	4.0	4932		4.4	7146
		1481		4.9	4933		4.3	7147
		1621		4.8	4938		4.3	7149
	3.3	1748		5.0	4989	(N ₄ 65:O)	4.0	7219
	3.2	1752		4.8	4993	(O:N ₄ 65:O)	4.0	7263
	3.1	1812	(6 ₄) (O:C)	4.9	5030		4.0	7279
(6) ₂	3.5	1924	_N				4.1	7284
(6) (C:C)	2.1	1986				(O:N ₄ 65:O)	4.0	7299
(6) ₂ (C:C)	3.7	2095	(6 ₄) (6)	5.1	5044	(O:N ₄ 66:O)	3.8	7335
(6) (N:N:N) ₂	3.3	2410	(6 ₅)	4.9	5070	(O5)	1.4	7401
(6) (N:C)	4.2	2425		5.0	5086	(O5) (N:C)	4.4	7417
	4.0	2433	(6 ₇)	4.7	5143	(O5) (O:C) ₂	4.2	7440
	3.9	2454	(N5) (O:C) ₂	4.0	5211	(O6:O)	3.9	7592
(6) ₂ (N:C) (C:C)		2602	_O				3.9	7603
(6) (O:C)	4.2	2677	(N5) (6)	4.1	5224	(ON65) (O:N)	4.0	7906
(6) ₂ (O:C)	4.0	2884	(N6)	3.4	5273	_O		
	4.1	2893		3.7	5283	(ON ₃ 65) (6)	4.5	7951
	4.0	2901		3.9	5370	(S5) (O:C) ₂	4.2	8010
	4.1	2902	(N6:O)	3.8	5506	_O		
(6) (O:C) (C:C)	4.1	2984	(O:N65:N65:O)		5629	(S665) (O:N)	3.7	8152
(6) (O:C) (C:C) ₅		3034		4.6	5633	_O		
(6) ₂ (O:C) (C:C)	4.0	3045		4.6	5634			
	3.3	3056		4.5	5635			
	4.1	3072		4.6	5640	(SN5)	4.3	8169

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.3	8177	(6 ₃)(6) ₄	4.9	4723		3.5	1551
(SN5:N)	4.3	8219	(6 ₃ 5:0)	4.7	4898		3.4	1607
(SN5:O)(6) ₂ (C:C)	4.4	8226	(6 ₄)	4.9	4923			1788
(O:SN ₂ 655:C)(6)	4.1	8395		5.0	4926	(6) ₂	3.7	1881
				5.0	4928		3.8	1913
				5.0	4974		3.9	1922
λ _{max.} : 291-291.5μ				5.0	4987		4.2	1929
			(6 ₄)(O:C)	4.9	5035	(6) ₄	4.7	1970
none	2.5	31				(6)(C:C)		2034
	3.1	44	(6 ₅)	5.1	5077	(6)(N:N)	3.8	2153
(C:C) ₂ (C:C) ₂	4.4	282	(6 ₅)(N:C:O)	5.1	5095	(6)(N:N)	4.1	2395
(N:C)(C:C) ₂	4.2	482	(6 ₆)	4.7	5122			
(O:C)(C:C)	4.2	743		4.8	5135	(6) ₂ (N:C) ₂	4.4	2552
(O:C)(C:C) ₂	4.3	803	(N6)		5292	(6)(O:C)	3.4	2655
(O:C)(C:C)	4.4	1052		3.9	5308	(6) ₂ (O:C)(C:C)	4.3	3052
				4.2	5368	(6) ₂ (O:C)(C:C)	4.4	3158
(O:C) ₂ (C:C)	3.7	1117		3.5	5372			
	3.9	1119	(N6:O)	3.8	5524	(6)(O:C)	3.5	3230
(O:C)(O:C)(C:C)	3.9	1194	(O:N65:N65:O)	4.6	5637			3257
			(N665)	4.2	5946		3.2	3289
(S:C)	4.1	1309	(N6 ₃)	3.8	5963		3.0	3292
(6)	4.1	1416	(N ₂ 6)	3.8	6215	(6)(O:C)(C:C)	4.4	3339
		1512		3.6	6216			
	3.6	1562		4.4	6291	(6)(O:N)	3.7	3462
	3.5	1749	(N ₂ 6)(N:C)	4.0	6364	(6)(O:N)	3.6	3537
(6) ₂	3.8	1914	(N ₂ 6:O)	4.1	6505		4.3	3540
	4.4	1921	(N ₂ 6:O)		6518		3.7	3549
	4.4	1927	(N ₂ 65)	3.7	6634	(6)(O:N) ₂	4.1	3684
(6) ₂ (C:C)	4.4	2086	(N ₂ 65)(N:C)	3.9	6646		4.0	3690
(6) ₂ (C:C) ₂	4.5	2554	(N ₂ 66)	3.7	6679	(6)(O:N)(C:C)		3796
(6)(O:C)	4.0	2794	(N ₂ 6 ₃)(6)	4.6	6828			
		2805	(N ₂ 655 ₂)	4.3	6856	(6)(O:N)(O:C)	4.4	3874
(6) ₂ (O:C) ₂	4.3	2922	(N ₃ 65)	3.7	6964			
(6) ₃ (O:C)	4.4	2932	(N ₃ 65)(6)	3.9	7003	(O:6:O)	2.5	3955
(6)(O:C)(C:C)	3.5	2963	(N ₄ 65:O)	4.0	7218		4.4	3993
(6) ₂ (O:C)(C:C)		3081	(O:N ₄ 65:O)	4.1	7293		4.2	4000
(6)(O:C)	3.4	3215		4.0	7297	(7:O)(6)	4.1	4069
	3.7	3249		4.0	7298		4.0	4074
		3258	(O5)(N ₂ 6)(N:N:N) ₂	4.2	7553	(66) ₂	4.2	4221
(6)(O:C) ₂		3321	(O66:O)(6)	4.1	7699	(66) ₂ (C:C) ₂	3.7	4241
			(ON ₂ 5:O)	4.1	7942	(66)(6)(C:C) ₂	4.7	4372
(6)(O:N)	3.7	3579	(S665)	4.0	8134		4.5	4373
			(SN65)	3.0	8261	(75)(O:C)	4.4	4574
(6)(O:N)(O:C)	4.3	3868	(S ₂ N ₂ 6655)	4.2	8402	(6 ₃)	4.1	4668
						(6 ₃ 5)	4.5	4883
(6) ₃ (O:N)(O:C)(C:C)						(6 ₃ 5:O)	4.8	4899
	4.3	3880	λ _{max.} : 292-292.5μ			(6 ₄)	4.9	4948
(O:6:O)	2.7	3951					4.7	4955
	2.5	3956	(C:C)(C:C) ₃	4.8	270		4.5	4967
	4.4	3994	(O:C)	1.6	610		5.1	5005
	4.1	3998	(O:C)(C:C)	4.2	762		5.2	5009
	4.1	4001	(O:C)(C:C) ₂	3.6	801	(6 ₄)(C:C)	4.5	5013
(75)(O:C)	5.0	4580		3.7	802	(6 ₄)(O:C)	4.7	5029
			(6)	4.3	1441			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6 ₅)	4.9	5067	(Se665) (O:N) O	4.4	8416	(N5) (O:C) O	4.0	5212
(6 ₄ 5 ₂)	5.1	5106				(N6)	3.8	5305
(6 ₆)	4.6	5111				(O:N65:N65:O)	4.6	5642
(N5) (O:C) O	3.9	5222	λ _{max.} : 293-293.5mμ			(N66) ₂	4.0	5806
(N6)	3.9	5316	(O:C)	1.3	613	(N665)	4.2	5927
(N6) (C:C)	3.6	5397		1.5	615		4.2	5928
(N6) (6) ₂	4.7	5446	(O:C) (C:C)	4.3	720		4.2	5941
(O:N65:N65:O)	4.6	5638		4.3	771	(N6 ₃)	3.9	5974
(N66)	3.6	5668	(O:C) (C:C) ₂	3.9	811	(N26)	3.6	6230
	3.8	5680	(O:C) (N:C) (C:C) ₂	4.2	1187		2.5	6298
	3.8	5695	O			(N26) (N:C)	3.7	6367
	3.7	5785	(6)	3.6	1447		3.7	6368
	3.7	5788		2.5	1449	(N26:O)	3.9	6484
(N66:O)	4.0	5893		3.1	1469	(N26:O) (6)		6516
	4.0	5894			1614	(N26:S)	4.0	6540
(N6 ₅)	4.8	6067		3.3	1685		4.3	6552
(O:N25:C)	3.9	6097	(6) ₂	3.9	1915	(O:N26:O)	4.0	6598
(N26)	3.1	6151		4.0	1916	(N265)	3.8	6637
	3.7	6341		3.7	1917	(N266:O) (6) (O:N) O	4.0	6756
(N26:O)	3.6	6444	(6) (C:C)	2.9	1987			
(N26:S)	4.2	6546	(6) ₂ (N:C) ₂	4.1	2532	(N26 ₄)	4.6	6849
	4.1	6556		4.2	2548	(N465)	4.1	7111
	4.2	6557	(6) ₃ (N:C)	4.4	2565	(O:N465:O)	4.0	7305
(N265)	3.9	6644	(6) (O:C)	3.4	2706			
(N265) (O:C) O	3.9	6649	(6) (O:C) (C:C) ₂	4.4	3015	(ON65) (6)	4.3	7917
			(6) (O:C) (C:C) ₅		3032	(S5) (O:C) (C:C) O	4.4	8024
(N266)	3.8	6681	(6) (O:C) O	3.4	3216			
(N2635)	4.7	6830	(6) (O:N) (C:C) O	4.1	3766	(S5) (6) (O:C)	4.1	8048
	4.6	6831				(S665) (O:N) O	3.6	8149
(N365)	3.8	6963	(N:6:C) (6) ₃	4.4	3944			
(N365) (O:N) O	3.8	6986	(66)	3.8	4149	λ _{max.} : 294-294.5mμ		
			(66) (C:C)	4.0	4232			
(O:N465:O)	3.9	7288	(66) ₂ (N:C) ₂	4.3	4256	(N:C) ₂		391
O: O:N465:O	4.1	7294	(66) (O:C)	3.8	4270	(N:C) (C:C) ₂	4.2	503
(O:N466:O) (O:C) O	3.9	7302	(66) (O:C) ₂	3.7	4312	(O:C)	1.7	605
						(O:C) (C:C) O	4.2	1044
(O6:O) (O:C) O	3.7	7614	(66) (6) (N:N)	4.2	4396			
			(665:O)	3.5	4610	(O:C) (C:C) ₃	4.6	1088
(O65) (6) ₄	4.6	7633	(6 ₃)	4.1	4621			
(O66:O) (6)		7697		4.2	4622	(O:C) ₂ (C:C) O	3.6	1116
(O:ON5:C) (6) ₂	4.3	7807	(6655) (N:C) ₂	4.6	4871			
	4.4	7842	(6 ₃ 5)	4.4	4882	(6)		1513
(ON65) (6)	4.3	7910	(6 ₃ 5:C) (O:C) O	4.2	4892		3.5	1555
	4.3	7918					3.6	1609
(S65) (O:ON5:C) (6)	4.3	8113	(6 ₄)	5.0	4925			1636
(SN5)	4.3	8180		4.0	4951			1726
(SN5) (6) (C:C)	4.3	8198		4.9	4991		3.5	1785
O: (S:SN5:C) (S5)	3.8	8240		4.9	4995		3.6	1850
	3.8	8242		4.9	4998	(6) ₂	4.0	1907
(SN65) (O:N) O	4.1	8277	(6) ₇	4.7	5141	(6) ₂ (C:C)	4.4	2071
				5.0	5155	(6) (N:N)	3.8	2151
(SN65:O)	3.6	8339				(6) (N:C)	3.6	2626

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) (O:C) ₂	3.9	2853	(N ₃ 5) (6) ₂	3.8	6890		4.3	3041
(6) (O:C) (C:C)	4.3	3009	(N ₃ 65) (O:N) O	4.0	6990	(6) (O:C) N	4.2	3139
(6) ₂ (O:C) (C:C)	4.2	3053				(6) (O:C) O	3.7	3241
	4.4	3066	(O6:O) (O:C)	3.9	7608		3.5	3248
(6) (O:C) ₂	3.3	3146	(O65)	3.6	7628		3.7	3254
N			(ON65) (6)	4.4	7911		3.9	3267
(6) (O:C)		3206	(S5) (O:C)	4.1	8002		3.2	3273
O	3.5	3229	(S:SN5:O) C	3.9	8241		3.0	3291
	3.4	3246					3.8	3330
		3294				(6) ₂ (O:C) ₂	3.6	3331
(6) ₂ (O:C) (C:C)	4.4	3374				(6) ₂ (O:C) (C:C)	4.4	3378
O			λ _{max.} : 295-295.5mμ					
(6) (O:N)	4.1	3669	none	2.5	15	(6) (O:N)	4.0	3455
			(C:C) ₃	4.1	155	(6) (O:N)	3.8	3597
(6) (O:N) (C:C)		3789	(N:C) (C:C) (C:C)	4.5	557			
			(O:C)	1.3	595	(6) (O:N) (C:C)		3800
(6) ₂ (O:N) ₂ (N:C) ₂	4.6	3851		1.6	607			
			(O:C) ₂	1.6	630	(7:O) (6) (O:N) (C:C)	4.5	4091
(O:6:N)	4.4	4027	(O:C) ₃	3.9	633	O		
(66)	3.9	4121	(O:C) (C:C)	3.5	731	(66)	4.0	4124
	3.8	4182		4.3	744		3.7	4144
	3.6	4202	(O:C) (N:C) (C:C)	4.0	971		3.9	4185
(66) ₂	4.1	4220	(O:C) (C:C) ₂	4.0	1086	(66) (C:C)	3.9	4236
(66) (O:C)	3.9	4296	O			(66) (N:C)	4.4	4250
			(O:C) (N:C) (C:C) ₂	4.3	1184	(665:O)	3.5	4611
(75)	4.9	4559	O			(63)	3.9	4688
	5.0	4561	(6)	3.3	1400	(O:63:O)	4.6	4731
	4.4	4568		3.8	1438		3.7	4739
(75) (6)	4.6	4591		3.4	1461		4.6	4817
(665:665)	5.0	4601		3.3	1571	(635)	4.6	4889
(63) (C:C)	4.1	4695		4.5	1681	(64)	5.0	4946
(64)	5.0	4944		3.5	1683		5.1	5006
	4.9	4945		3.5	1713	(64) (N:C)	4.8	5016
	4.9	4999		3.2	1753	(64) (6) ₃	5.0	5047
	5.0	5007		2.5	1768	(655 ₂)	4.6	5138
(64) (O:C)	4.7	5024		3.0	1810	(67)	4.9	5140
(64) (N:C:O)	5.0	5043		3.5	1828	(N6)		5295
(64) (6) ₂	4.8	5046	(6) ₂	3.8	1941	(N6) (O:C)	3.8	5410
(695 ₂)	4.5	5192	(6) (C:C)	3.6	2025	(N6) (6) ₂ (C:C) ₂	4.8	5463
(N6) (N5)	4.2	5489	(6) ₂ (C:C)	4.3	2073	(N65)	3.6	5571
(O:N65:O)	3.3	5597	(6) ₃ (C:C)	4.1	2120	(O:N65:N65:O)	4.2	5621
(O:N65:C) (O:C)	3.9	5612	(6) (N:C)	3.8	2460		4.4	5622
O			(6) ₂ (N:C) ₂	4.4	2529		4.2	5631
(N66) (O:N)	3.9	5820		4.3	2544			5647
O				4.5	2577	(N66) ₂	4.0	5808
(N66) (6)	4.0	5824	(6) ₄ (N:C) ₂	4.2	2638	(N25) (6) ₂	4.4	6075
(N26)	3.7	6340	(6) ₂ (N:C) (C:C)	4.2	2641		4.3	6076
	2.5	6347		4.3	2685	(N25) (6) (O:C)	3.9	6084
(N26:O)	3.4	6418	(6) (O:C)	3.4	2707	N		
(N265)	3.7	6635	(6) ₂ (O:C)	4.3	2882	(N26)	3.6	6188
(N266)	3.9	6675	(6) (O:C) (C:C)	4.0	2991	(N26) (N:C)	4.0	6365
(N266:O) (6) (O:N)	4.1	6755		4.3	3010	(N26:O)	3.9	6504
O			(6) (O:C) ₂ (C:C)		3040	(N26:S)	4.1	6558
(N2635)	4.6	6836						

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N ₂ 65) (N:C)	4.0	6648	(O:6 ₃ :O)	3.6	4824	λ _{max.} : 297-297.5μ		
(N ₂ 66) (O:N)	3.9	6700	(6 ₃ 5)	4.6	4887			
$\begin{array}{c} \text{O} \\ \\ (\text{N}_365) (\text{O:N}) \end{array}$	3.8	6987	(6 ₄)	4.9	4947	none	2.4	25
				4.9	4950	(C:C) ₅ (C:C) ₂	5.2	291
(N ₄ 65)	4.1	7112		4.6	4983	(O:C)	1.5	604
	4.1	7216		4.9	5000	(O:C) ₂	1.5	628
$\begin{array}{c} \text{O:} \\ \\ (\text{O:N}_465:\text{O}) \end{array}$	3.9	7296		4.9	5008	(O:C) (C:C) ₂	4.4	805
(ON65) (6) (O:N)	4.3	7925	(6 ₄) (N:C)	4.8	5010	(6)	4.3	1417
$\begin{array}{c} \text{O} \\ \\ (\text{ON}_365) (6) \end{array}$	4.5	7951	(6 ₄) (O:C)	4.7	5017		4.0	1515
(S5) (O:C)	4.1	7999	$\begin{array}{c} \text{O} \\ \\ (6_4) (\text{O:C}) \end{array}$	4.8	5037		3.4	1684
(SN65)	3.9	8259	(6 ₄) (O:C) (O:C)	4.8	5039	(6) (C:C)	3.7	1827
(SeN65)	3.3	8424	$\begin{array}{c} \text{O} \\ \\ (6_4) (6) \end{array}$	5.1	5045		3.9	2021
			(6 ₄) (6) ₃	5.1	5048	(6) ₂ (C:C)	3.4	2028
			(6 ₅)	5.2	5071	(6) (N:C)	4.3	2137
				4.7	5073		4.4	2435
λ _{max.} : 296-296.5μ				5.2	5071		3.9	2461
			(O:6 ₅ :O)	4.9	5085	(6) (O:C) ₂	3.4	2839
(O:C) (C:C) ₂	4.5	798	(6 ₆)	4.8	5105	(6) (O:C) (C:C) ₂	4.3	3012
	4.3	829	(6 ₉)	4.6	5110	(6) (O:C)	3.5	3240
(O:C) (C:C) ₃	4.2	832	(N6)	4.6	5188	$\begin{array}{c} \text{O} \\ \\ (6) (\text{O:C})_4 \end{array}$	3.7	3265
(O:C) ₂ (C:C)		1122	(N6) (O:C)	3.6	5268		3.4	3323
$\begin{array}{c} \text{O} \\ \\ (6) \end{array}$			$\begin{array}{c} \text{O} \\ \\ (N6) (\text{O:C}) \end{array}$		5434	(65:C) (6) (C:C)	4.3	4097
(O:N)		1242	(N6:O)			(66)	4.0	4125
(6)	3.6	1615	(N65)	3.9	5517			4201
	3.2	1750	(N66)	4.1	5562	(66) (6) (C:C:C)	4.4	4375
		1770	(N66)	3.8	5710	(O:66:O) (C:C)	4.4	4516
		1790	(N66) (O:N)	3.9	5818	(665:O) (O:C)	3.5	4616
(6) ₂	3.8	1925	$\begin{array}{c} \text{O} \\ \\ (N66) (6) (\text{C:C})_2 \end{array}$	4.4	5833		4.0	4627
(6) (O:C)		2660		4.4	5834	(6 ₃)	4.1	4628
		2668	(N665) (O:C)	4.7	5950		4.0	4637
(6) (O:C) (C:C) ₅		3033	$\begin{array}{c} \text{N} \\ \\ (N665) (\text{O:C}) \end{array}$			(6 ₄)	4.9	4956
(6) ₂ (O:C) (C:C)	4.2	3054	(N ₂ 6)	3.6	6329		4.9	4957
(6) (O:C)	3.5	3204		3.6	6330	(6 ₄) (O:C)	4.8	5036
$\begin{array}{c} \text{O} \\ \\ (6) \end{array}$	3.4	3208	(N ₂ 6:O)	3.8	6406			
		3293	(N ₂ 665)	4.2	6779	(6 ₄) (N:C:O)	4.9	5042
(6) ₂ (O:C) (C:C)	4.4	3384	(N ₃ 65)		6956	(6 ₄ 5:O)	5.0	5065
$\begin{array}{c} \text{O} \\ \\ (6) (\text{O:C}) (\text{O:C}) (\text{C:C}) \end{array}$	3.1	3423	(N ₄ 65)	4.2	7083	(6 ₅) (N:C)	4.7	5092
				4.3	7094	(6 ₆)	4.8	5116
(6) (O:N)	3.9	3552		4.3	7150		5.0	5133
$\begin{array}{c} \text{O} \\ \\ (6) \end{array}$			(O:N ₄ 65:O)	4.0	7300	(6 ₇ 5 ₂)	4.5	5182
(O:6:O)	2.6	3950	(O5) (6) ₃ (O:C)	4.4	7545	(N6)		5294
	4.0	4003	(O65) (6) ₄	4.6	7634	(N6) (6)	4.0	5442
(66)	3.9	4123	(O66:O)	3.9	7673	(N6:O)	3.8	5504
	4.3	4128	(O66:O) (6)	4.0	7686		3.6	5536
(66) (C:C)	4.0	4233	(O:ON5:C) (6) ₂ (O:N)	4.1	7882	(O:N65:O)	3.5	5598
	4.1	4235	$\begin{array}{c} \text{O} \\ \\ (O:ON5:C) (6)_2 (\text{O:N}) \end{array}$			(O:N65:N65:O)	4.5	5645
(66) (O:C) ₂		4310	(ON65) (6)	4.4	7913		4.5	5646
$\begin{array}{c} \text{O} \\ \\ (66) (6) \end{array}$	4.2	4359	(SN65)	3.0	8261	(N6 ₃)	4.6	5981
(665:O) (O:C)	3.5	4618	(SN65) (6)	4.2	8281	(N6 ₄)	4.3	6052
						(N ₂ 5) (6) (O:N)	3.7	6091
						$\begin{array}{c} \text{O} \\ \\ (N_25) (6) (\text{O:N}) \end{array}$		
						(N ₂ 6)	3.6	6153

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	3.2	6212	(6 ₃) ₄ (C:C)	5.1	4697	(S:C)	3.9	1314
	3.4	6217	(O:6 ₃ :O)	4.3	4745	(6)	3.3	1412
	3.1	6301	(6 ₃ 5:N)	4.5	4895	(6) ₂	3.6	1869
(N ₂ 6:O)	3.8	6429	(6 ₄)	5.0	4960	(6) ₂ (N:N)	4.0	2163
(N ₂ 6:O)(6)	3.8	6522		4.8	4961		3.8	2165
(N ₂ 6 ₃ 5)	4.6	6837		4.7	4994	(6)(N:N)	4.3	2398
(N ₃ 65)(O:N)	3.9	6988	(6 ₄)(N:C)	5.0	5019	O		
			(6 ₄)(O:C)	4.8	5038	(6)(N:C)	4.0	2429
(N ₄ 65)	3.7	7096	O			(6)(O:C)		2666
(O:N ₄ 65:O)	4.0	7301	(6 ₈)	4.1	5169			2733
(O:N ₄ 65:O)	3.9	7303	(N5)(O:C) ₂	4.3	5216	(6) ₂ (O:C) ₂	4.5	2924
(O5)(O:N)(O:C)	4.1	7510	O			(6)(O:C)	3.5	3142
			(N6)	3.7	5277	N		
(O5)(6) ₂ (O:C)	4.3	7550		3.7	5299	(6)(O:N)	3.8	3467
			(N6) ₂		5381	(6)(O:N)(C:C)	4.3	3764
(O:ON5:C)(6) ₂ (O:N)	4.1	7863	(N65)	3.7	5573	O		
			(O:N65:O)		5599	(6)(O:N) ₂ (C:C) ₂		3809
(ON ₂ 665)	3.8	7949	(N66)	4.0	5678	O		
(S65)	3.5	8103		4.0	5713	(66)	3.9	4157
(S665)	3.9	8136	(N66)(6)(C:C)	4.1	5830	(66)(O:C)	3.6	4277
(SN65)(6)	4.3	8280	(N66:O)	3.6	5875	(66)(O:C)	3.8	4283
(SN ₂ 6655)	4.2	8401	(N ₂ 6)	3.5	6161	(66)(6)(O:C) ₂	4.0	4444
					6334	O		
				3.7	6338	(6 ₃)	4.1	4640
λ _{max.} : 298-298.5mμ				3.8	6339		4.1	4644
(N:C)(C:C) ₂	4.0	506	(N ₂ 65)(N:C)	4.0	6647	(6 ₃)(6)	4.4	4720
(O:C)(C:C) ₂	3.7	772	(N ₂ 66)	3.6	6682	(O:6 ₃ :O)	4.4	4809
(O:C)(C:C)	2.0	948	(N ₂ 665)	4.2	6783	(6 ₄)(6) ₃	5.0	5049
(O:N)(C:C) ₂	4.1	1298	(N ₄ 65)	4.2	7085	(6 ₅)	4.7	5082
O			(N ₄ 65)(6)	4.4	7172	(6 ₅)(O:C)	4.5	5093
(6)	3.4	1782	(N ₄ 65:O)	4.1	7215	(N6) ₂ (C:C)	3.9	5407
(6) ₂ (C:C)	4.5	2085	(O6:O)(O:C)	3.7	7616	(N6:O)	3.8	5516
(6) ₃ (C:C) ₂	4.7	2123	O				3.9	5527
(6) ₂ (N:C)(C:C)	4.4	2606	(O665)	4.0	7758	(N65)(O:C)	3.9	5576
(6)(O:C) ₂	4.0	2844	(O665)(O:O5:C)(6)	4.2	7760		4.1	5579
(6) ₂ (O:C) ₂	4.4	2927	(O:ON5:C)(6) ₂	4.2	7828	(O:N65:O)	3.4	5602
(6)(O:C)(C:C)	4.2	2983		4.2	7840	(N66)	3.4	5764
	4.2	2989	(S5)(6)	4.0	8040	(N66)(O:N)	3.9	5817
(6)(O:C)(C:C) ₄	3.8	3031	(S65)	3.4	8102	O		
(6) ₂ (O:C)(C:C)	4.4	3048	(S665)(O:N)	4.4	8150	(N665)	4.2	5948
(6)(O:C)		3235	O			(N ₂ 5)(6)(O:N)	4.0	6087
			(SN65)(6)(O:N)	4.2	8289	O		
(6)(O:C) ₂	3.7	3320				(O:N ₂ 5:C)	4.2	6098
						(N ₂ 6)	2.5	6132
(6)(O:C)(C:C)	4.2	3364	λ _{max.} : 299-299.5mμ				2.2	6133
O			(C:C) ₄	4.8	184		3.3	6211
(N:6:C)(6) ₃	4.2	3943	(N:C)(C:C)	4.5	420	(N ₂ 6:O)	3.7	6218
(66)	4.1	4139	(N:C)(C:C) ₂	4.7	497	(N ₂ 66)(6)(C:C) ₂	3.7	6397
	3.8	4184	(O:C)	1.9	596	(N ₂ 66:O)	4.4	6710
(66)(6)(C:C:C)	4.0	4374		1.3	603		3.7	6737
(O:66:O)	3.9	4504	(O:C) ₂	1.5	629	(N ₄ 65)	4.2	7110
(6 ₃)	4.0	4638	(O:C)(C:C)	3.9	1067	(ON65)(6)	4.4	7909
	4.1	4645	O			(S665)	4.3	8137
						(Se665)	3.9	8411

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
$\lambda_{\max.}: 300-300.5\mu$								
(N:C) (C:C) ₂	4.6	489		4.1	4641			
		494		4.2	4642	(O5) (N:C) (C:C)	4.4	7423
	4.6	501	(765)	4.0	4662	(O5) ₂ (N:C) ₂ (C:C) ₆	4.2	7430
(N:C) (C:C) ₃	4.1	578	(64)	4.0	4667	(O5) (O:C) (C:C) ₅		7433
(O:C) ₂ (C:C)	3.9	1118	(64) (N:C)	4.8	4863	(O5) (O:C)	4.4	7450
O			(65)	4.9	5011	O		7469
(O:N)	2.0	1241		4.9	5018	(O5) (O:C) (C:C)		7477
(6)	3.3	1479		4.8	5081	O	4.4	7479
		1494		4.9	5084	(O5) (O:C) ₂ (C:C) ₂	4.5	7490
	3.3	1498	(65) (O:C)	5.1	5086	O		
	3.3	1754	(67)	4.7	5088	(O5) (6) (N:C) (C:C)		7544
(6) ₄	4.6	1969		4.4	5094	(O6:O)	3.7	7591
(6) (C:C)	3.5	2027	(68)	4.5	5146		4.0	7606
(6) ₂ (C:C)	4.3	2075	(N6)	5.0	5150	(O66:O) (6)		7707
	4.5	2083		4.7	5163	(S5) (O:N) ₂	4.3	8028
(6) (N:C)	4.4	2442		3.8	5269	O		
(6) ₂ (N:C)		2512		3.5	5271	(S5) (6)	4.0	8036
(6) ₂ (N:C) ₂	4.5	2530	(N6) ₂	4.0	5285	(SN5) (O:C)	4.2	8188
	4.6	2540	(N65)		5385	O		
	3.8	2558	(O:N65:N65:O)	4.1	5387	(SN65:N)	3.7	8333
	3.3	2559		4.2	5561	(O:SN ₂ 655:C) (6)	4.2	8394
(6) ₄ (N:C) ₂	4.1	2580	(N66)	4.3	5630			
(6) (O:C)	3.4	2708		4.5	5649	$\lambda_{\max.}: 301-301.5\mu$		
(6) (O:C) ₂	3.1	2845	(N66:O)	3.8	5693	(C:C) (C:C) ₃	4.3	269
(6) ₂ (O:C)	4.3	2894	(N63)	3.7	5721	(N:C) ₂		381
(6) ₄ (O:C)	4.8	2935	(N64)	4.1	5975	(N:C) (C:C)	4.6	433
(6) (O:C) (C:C)	3.8	2968	(N ₂ 6)	4.3	6053		4.6	455
(6) (O:C) ₂ (C:C)	4.2	3043		3.6	6155	(O:C) ₂ (C:C) ₃	4.7	1140
(6) ₂ (O:C) (C:C)	4.1	3087		4.3	6280	O		
(6) (O:C) (N:N)	3.9	3161	(O:N ₂ 6:O) (O:N)	3.6	6328	(O:N)	0.8	1287
N			O	4.0	6604	O		
(6) (O:C)	3.3	3189	(N ₂ 65) (O:C)	3.9	6650	(6)	3.4	1619
O	3.8	3237	O			(6) ₂	4.0	1866
		3260	(N ₂ 65) (O:N)	3.8	6655	(6) ₂ (N:N)	3.9	2289
(6) (O:C) ₂ (O:C)		3408	O			(6) ₂ (N:C) ₂	4.6	2527
O			(N ₂ 66)	3.6	6689		2.8	2557
(6) (O:N)		3660	(N ₂ 66) (O:N)	3.9	6702	(6) (O:C)	1.8	2728
O			O			(6) (O:C)	3.4	3207
(6) ₂ (O:N) ₂	4.1	3757	(N ₂ 66:O)	2.8	6715	O	3.4	3256
O				2.9	6716	(6) (O:C) (C:C)	4.1	3344
(6) (O:N) (C:C)		3792		3.9	6717	O		
O		3799		3.6	6720	(6) ₂ (O:N)	4.2	3742
(6) (O:N) ₂ (C:C)		3806	(N ₂ 665)	4.1	6767	O		
O				4.2	6780	(6) (O:N) (C:C)		3774
(N:6:C) (6) ₂	4.4	3940	(N ₂ 64)	4.6	6849	O		
(66)	3.5	4141	(N ₃ 5) (6) ₂ (C:C)	4.7	6894	(6) (O:N) ₂ (C:C) ₂		3807
	3.9	4203	(O:N ₄ 65:O)	3.9	7304	O		
(66) (O:C)	2.8	4282	(N ₄ 66:O) (O:C)	3.9	7323	(O:6:O)	4.1	4002
(75)	4.4	4567	O	4.0	7325	(O:6:N)	4.2	4025
(665:N)	4.0	4609		3.9	7414	(66)	2.5	4098
(63)	4.1	4625	(O5) (N:C)	4.4	7422	(66) (6) (O:C)	3.9	4439
	4.1	4631				O		

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(O:66:O)	4.2	4505		3.5	1789	(ON65) (6)	4.4	7912
(6 ₃)	4.3	4633	(6) ₂	4.0	1867	(ON ₂ 665)	3.8	7950
	4.2	4634		4.0	1892	(SN65)	4.4	8253
	4.1	4651		3.9	1914	(SN65:N) (6)	4.0	8338
	4.1	4692		4.3	1929	(SN65:S)	4.4	8344
(6 ₃) (C:C)	4.1	4693		3.8	1931			
(6 ₃) (6 ₂)	4.3	4727	(6) ₂ (C:C)	4.4	2084			
(O:6 ₃ :O)	4.3	4802	(6) ₃ (C:C)	4.2	2119			
(6 ₄)	4.1	4937	(6) (O:C)	4.1	2761	$\lambda_{\max.}$: 303-303.5m μ		
	4.2	4940	(6) (O:C) (C:C)	4.3	3011	none	2.4	29
(6 ₄ 5)	4.6	5062	(6) (O:C) ₂	3.3	3147	(N:N) O	1.2	306
(6 ₅)	4.5	5089	N			(O:C)	1.4	588
	4.7	5091	(6) (O:C)	3.6	3203	(O:C) (C:C) ₂	3.8	809
(6 ₅ :O)	4.5	5104	O	3.1	3270		4.0	830
(6 ₈)	4.6	5162	(6) (O:N)	4.0	3463	(O:C) (C:C) ₃	4.5	847
(N ₅) (6) ₃	4.3	5231	O	4.2	3588	(O:C) (C:C) (C:C) ₂	4.3	953
(N ₆)	4.0	5282	(N:6:C) (6) ₄	4.5	3945	(O:C) (C:C) ₃	4.6	1089
	4.0	5286	(66)	2.5	4099	O		
(N66)	3.1	5679		3.7	4186	(6)	3.9	1638
	4.1	5707	(66) (C:C)	3.9	4239			1767
	4.0	5709	(66) (O:C)	3.9	4280	(6) ₂	3.3	1878
	3.6	5750	(66) ₂ (O:C) ₂	4.2	4314		4.4	1889
	3.4	5768	O				3.8	1912
(N665) (O:N)	4.2	5952	(75) (6)	5.0	4592		3.9	1913
O				4.8	4594			1920
(N ₂ 6)	3.7	6359	(665:O)	3.5	4612	(6) (C:C)	3.6	2018
(N ₂ 665)	4.2	6772	(6 ₃)	4.2	4650		3.8	2033
(N ₄ 65)	4.1	7067		4.2	4657	(6) ₂ (C:C)	4.3	2079
	3.8	7144		3.9	4669	(6) (N:C)	4.0	2426
(S ₅) ₂	4.1	7978		4.2	4690	(6) ₂ (N:C) ₂	4.5	2534
(S65) (O:C)	4.2	8111	(6 ₄)	4.4	4963		4.4	2550
O				4.6	4969		4.4	2551
(S665) (O:C)	4.1	8139		4.7	4970	(6) (O:C)	3.9	2749
O				4.9	5001	(6) ₂ (O:C) (C:C)	4.3	3061
(S:SN ₅ :O :C) (S5)	3.9	8243	(6 ₇)	4.7	5157	(6) (O:C)	3.5	3197
(Se665)	4.3	8414	(N ₆) ₂		5386	O	3.6	3242
			(N ₆ :O)	3.8	5526	(6) (O:N) (C:C)		3771
			(N65) (O:66:O)	4.3	5592	O		3794
			(N66)	3.5	5770	(N:6:N)	4.6	3919
$\lambda_{\max.}$: 302-302.5m μ			(N ₂ 6)	3.8	6185	(O:6:O)	2.6	3960
				3.8	6342		2.2	3963
(C:C) ₃	4.1	173		3.7	6358	(O:6:N)	4.2	4028
(C:C) (C:C) ₃	4.7	271	(N ₂ 6) (N:C)	3.8	6366	(66)	3.8	4177
(N:C) (C:C)	4.5	443	(N ₂ 6:O) (6)	3.8	6519		3.8	4179
(N:C) (C:C) ₂	4.3	477			6523			4188
(O:C) ₂ (C:C) ₂	3.9	1137	(N ₂ 665)	4.2	6787	(66) ₂	4.0	4229
O			(N ₃ 5) (6) ₂	3.8	6891	(66) ₂ (C:C)	4.9	4240
(O:C) (N:C) (C:C) ₂	4.4	1185	(N ₄ 65:O)	4.1	7214	(66) (O:C) (C:C)	4.4	4316
O			(O:N ₄ 65:O)	4.3	7287	O		
(6)		1465	(O5) (N:C)	4.0	7415	(66) (O:N)	4.2	4352
		1492			7420	O		
	3.3	1493	(O5) ₂ (O:C) ₂	4.2	7441	(66) (6)	4.3	4367
	3.9	1679	(O66:O) (6)	4.1	7725	(O:66:O)	3.0	4507
	3.5	1682		4.1	7743			

















absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(665:0) (O:C) O	3.7	4617	(O:C) ₂ (C:C) ₂ O	4.4	1133	$\lambda_{\max.}: 305-305.5\mu$		
(6 ₃)	4.1	4632	(6)	3.4	1414	(N:C) (C:C) ₂	4.7	484
	4.2	4636	(6) ₂	3.9	1891		4.7	488
	4.2	4643		4.0	1915	(N:C) (C:C) ₂	4.5	556
(O:6 ₃ :O)	4.3	4748		4.2	1928	(N:C)		565
(6 ₄) (O:C)	4.7	5023	(6) ₂ (N:N)	3.9	2275	(O:C)	1.2	585
(6 ₄) (6) ₄	5.1	5050	(6) ₃ (N:N) ₂	4.5	2364	(O:C) (C:C)	4.5	656
(6 ₅) (N:C:O)	5.2	5095	(6) ₂ (N:C) (C:C)	4.5	2605		1.6	663
(6 ₅ :O)	4.3	5100	(6) (O:C)	3.5	2710		2.0	668
	4.1	5102	(6) (O:C)	4.2	3266			746
(6 ₆)	4.8	5111	O	4.0	3268	(O:C) (C:C) ₇	3.9	875
(6 ₇)	4.8	5160	(6) (O:N)	4.1	3471	(O:C) (C:C) (C:C) ₂	4.4	955
(N5) (O:C) (O:C) O	4.3	5220	(6) (O:N) ₂ (C:C) O	4.3	3804	(O:C) ₂ (C:C) ₂ O	4.0	1136
(N6)	3.6	5278	(O:6:N)	3.9	4031	(6)		1635
	3.4	5279	(66)	3.5	4205			1769
(N6:O)	4.0	5539	(66) (O:C)	3.8	4279	(6) ₂	3.9	1871
(N66)	3.5	5772	(75) (O:C)	4.5	4574	(6) (C:C)	4.1	2015
	3.4	5774	(6 ₃)	4.1	4653	(6) ₂ (C:C) ₂	4.5	2138
	3.5	5784		4.1	4654	(6) ₂ (N:N)	3.9	2287
(N ₂ 6)	3.7	6189		4.1	4686		4.2	2315
(N ₂ 6) (6) (O:N) (N:C) O	4.3	6394	(6 ₃) (6)	4.6	4710		3.9	2340
			(O:6 ₃ :O)	4.4	4792		3.9	2344
(N ₂ 6:O)	3.7	6445	(6 ₄) (6) ₄	5.1	5051	(6) (N:C)	3.6	2483
(O:N ₂ 6:O)	3.8	6600	(6 ₅)	5.1	5072	(6) ₂ (N:C) ₂	4.3	2545
(N ₂ 66)	3.9	6676	(6 ₅) (O:C:N)	4.8	5096	(6) (O:C)		2808
(N ₂ 66:O)	3.1	6726	(6 ₆)	5.1	5112	(6) (O:C) ₂	3.4	2848
	3.1	6727	(6 ₈)	4.8	5165	(6) (O:C) ₂ (C:C)	4.4	3042
	3.9	6740	(N6) ₂	3.7	5392	(6) ₂ (O:C) (C:C)	4.4	3049
(N ₂ 75)	3.8	6762	(N6:O)	3.9	5518	(6) (O:C)	3.8	3144
(N ₂ 665)	4.2	6784	(N65)	3.9	5574	N		
(N ₂ 665:O)	3.9	6788	(N66)	3.3	5740	(6) (O:C)		3272
(N ₄ 65)	3.8	7071		3.2	5754	O		
(O:N ₄ 65:O)	4.2	7286		3.4	5782	(6) (O:N)	4.1	3586
(N ₄ 66)	3.9	7315	O:			O	3.2	3661
(O5) (O:C) (C:C) O	4.7	7478	(O:N ₂ 5:C) (6)	4.3	6122	(6) (O:N) ₂	3.0	3670
			(N ₂ 6)	3.9	6181	O	3.2	3710
(O66:O) (6)		7693		3.7	6277	(6) ₂ (O:N) ₂	4.4	3756
		7702		2.7	6302	O		
(O665)	4.3	7753	(N ₂ 66) (6) ₂ (C:C) ₂	4.6	6712	(6) (O:N) (C:C)	4.1	3765
(S5) (O:C)	4.0	8001	(N ₂ 66:O)	3.9	6739	O		3775
(SN65)	4.1	8258	(N ₂ 6 ₃)		6805	(6) (O:N) (O:C)		3892
(Se665)	4.3	8412	(N ₃ 65)	4.0	6979	O		
			(N ₄ 65) (6)	4.4	7171	(N:6:C) (6) ₂	3.3	3938
				4.4	7173	(O:6:O)	2.5	3962
$\lambda_{\max.}: 304-304.5\mu$			(O:N ₄ 65:O)	4.2	7285	(7:O) (6)	4.1	4070
(C:C) ₄	4.3	182	(N ₄ 66)	3.9	7311	(7:O) (6) (O:C) (C:C) O	4.4	4089
(N:C) (C:C) ₂	4.7	486	(O66:O) (6)	4.4	7684			
	4.5	502		4.0	7687	(66)	3.7	4133
(N:C) ₂ (C:C) ₆	4.1	548	(O6 ₃ :O)	4.0	7772		3.9	4174
(O:C) (C:C)	1.7	703	(S5) (6)	4.2	8039	(66) ₂	3.3	4222
(O:C) (N:C) ₂	4.4	970	(S665) (O:N) O	4.0	8143	(66) ₂ (N:C) ₂	4.5	4257
						(6 ₃)	3.8	4655

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6 ₅)	4.7	5087	(O:C) (C:C) ₄	2.9	1091	(O:N ₄ 65:O)	3.9	7253
(6 ₅ :O)	4.5	5098	$\begin{array}{c} \text{O} \\ \\ \text{(6)}_2 \end{array}$	3.8	1911	(N ₄ 66)	3.9	7312
(6 ₇)	5.4	5151	(6) (N:C) (C:C)	3.9	1941	(O66:O) (6)	4.7	7685
(N6)		5293	(6) (O:C)	3.9	2590	(ON65) (6)	4.5	7921
(N6) (6) ₃ (C:C) ₃	4.4	5466	(6) (O:C) (C:C)	4.2	2996	(S5) (O:C) (C:C)	4.2	8022
(N6:O)	3.7	5505	(6) ₂ (O:C) (C:C)	4.2	3073	$\begin{array}{c} \text{O} \\ \\ \text{(S65)} \text{ (N:C)} \end{array}$	4.1	8109
	3.8	5512	(6) (O:C)	4.2	3140	(SN5) (O:C) ₂	4.0	8191
	3.7	5514	$\begin{array}{c} \text{N} \\ \\ \text{(6)} \text{ (O:C)} \end{array}$	3.5	3205	$\begin{array}{c} \text{O} \\ \\ \text{(SN5)} \text{ (O:C)} \end{array}$	4.1	8193
	4.0	5545	(6) (O:C)	3.6	3225			
	3.3	5549	(6) (O:C) (C:C)	4.1	3345	$\lambda_{\text{max.}}: 307\text{--}307.5\mu$		
(O:N65:N65:O)		5627	(6) (O:C) (O:C)	3.6	3407	none	2.4	45
	4.4	5636	$\begin{array}{c} \text{O} \\ \\ \text{(6)} \text{ (O:C)} \end{array}$	3.6	3654	(C:C) ₄	4.8	185
	4.5	5641	(6) (O:C)	3.8	3655	(C:C) ₂ (C:C) ₄		283
(N66)	3.5	5685	(6) (O:N)	4.1	3738	(O:C) (C:C)	4.4	711
(N66) (O:N)	3.9	5816	$\begin{array}{c} \text{O} \\ \\ \text{(6)}_2 \text{ (O:N)} \end{array}$	3.8	3900	(O:C) (C:C) ₂	4.2	814
$\begin{array}{c} \text{O} \\ \\ \text{(N64)} \end{array}$	4.6	6057	(6) (O:N) (O:C) (C:C)	4.1	3738	(O:C) (C:C) ₃	4.1	844
(N ₂ 5) (6) ₂	4.3	6077	(O:6:O)	2.5	3961	(6) ₂ (C:C) ₅	5.2	2141
(N ₂ 6:O)	3.9	6405	(66) (O:C) (C:C)	4.5	4288	(6) ₂ (N:C) ₂	4.1	2536
	3.8	6443	(66) (6) (O:C)	3.8	4437	$\begin{array}{c} \text{O} \\ \\ \text{(6)} \text{ (O:C)} \end{array}$	4.6	2539
(N ₂ 66) (O:N)	3.9	6697	(6 ₃)	4.2	4635	(6) ₂ (O:C) (N:C) (C:C)	4.3	3202
$\begin{array}{c} \text{O} \\ \\ \text{(N266:O)} \end{array}$	3.1	6725	(6 ₅)	4.6	5067	$\begin{array}{c} \text{O} \\ \\ \text{(6)}_2 \text{ (O:C)} \end{array}$	4.3	3269
(N ₃ 65)	3.8	6969	(6 ₆)	5.1	5079	(6) (O:N) (C:C)		3772
(N ₃ 65) (O:C)	3.6	6980	(N5) (6) ₂	4.8	5114	$\begin{array}{c} \text{O} \\ \\ \text{(66)} \text{ (O:C)} \end{array}$	3.7	3797
(N ₄ 5:N)	3.0	7050	(N6) (6) ₃	4.3	5230	(66) (O:C) (C:C)		4317
(N ₄ 65)	3.8	7070	(N6:O)	5.449	5449	$\begin{array}{c} \text{O} \\ \\ \text{(63)} \end{array}$	4.3	3405
	4.3	7093	(O:N65:C)	4.0	5546	(6) (O:N)	3.8	3656
	4.1	7109	(O:N65:N65:O)	4.0	5610	$\begin{array}{c} \text{O} \\ \\ \text{(6)} \text{ (O:N)} \end{array}$		3772
	3.8	7143	(N66)	4.6	5644	(6) (O:N) (C:C)		3797
	4.3	7148		4.2	5708	$\begin{array}{c} \text{O} \\ \\ \text{(66)} \text{ (O:C)} \end{array}$	3.7	4317
(N ₄ 65:O)	4.0	7220		3.5	5766	(O:6 ₃ :O)		4652
(O5) (O:N) (O:C)	4.0	7511		3.5	5786	(6655) (N:C) ₂	4.1	4656
$\begin{array}{c} \text{O} \\ \\ \text{(O66:O)} \end{array}$	3.9	7674		3.5	5791	(6 ₄ :O)	4.2	4660
(O66:O) (O:C)	3.9	7680		3.4	5792	(6 ₅ :O)	4.3	4750
$\begin{array}{c} \text{O} \\ \\ \text{(O66:O)} \end{array}$		7703		3.5	5792	(6 ₆)	4.7	4871
(O66:O) (6)		7771		4.3	6047	(N5) (6) ₂	3.9	5052
(O6 ₃ :O)	3.7	7771		4.0	6090	(N6)	4.6	5099
(ON65) (6)	4.5	7920		4.3	6163	(N6) ₂ (N:N)	5.4	5120
(ON66:O)	3.5	7938		3.8	6180	(N6) (O:C) (C:C)	4.3	5230
(S5) ₂	4.1	7977		4.0	6247	(N6) (6) (C:C)		

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N665) (6) (O:C) N	4.6	5960	(66)	3.9	4187	(6) (O:N) (C:C) O	4.2	3763
(N ₂ 6)	3.9	6345	(6 ₃ 5:N)	4.1	4894	(66) ₂ (O:C) ₂ O	4.1	4315
	4.0	6352	(6 ₄) (N:C)	4.9	5020			
(N ₂ 6:O)	4.0	6428	(6 ₄) (O:C)	4.7	5028	(66) (6) (N:N)	4.4	4385
(O:N ₂ 6:O)	3.7	6589	(6 ₄ 5)	4.8	5060	(66) (6) (O:C)	3.8	4432
(N ₂ 65) (O:C) O	3.9	6651	(6 ₅)	4.9	5076	(75) (O:N) O	4.3	4588
				5.0	5085			
(N ₂ 6 ₃)		6806	(6 ₆)	4.8	5110	(6 ₅ :O)	4.4	5104
(O5) (6) ₃ (O:C)	4.4	7546	(N5)	4.3	5201	(66)	5.3	5113
(S5) (C:C) ₂	4.3	7989	(N5) (O:C) ₂ O	4.4	5217		4.7	5130
(S65)	3.5	8107				(6 ₇)	4.9	5147
	3.2	8108	(N6)	3.5	5306	(N6:O)	3.9	5515
			(N6) ₂ (6) (C:C) ₂	4.7	5468		4.0	5533
			(O:N65:C)	3.9	5611	(O:N65:C)	4.2	5609
			(N66)	3.9	5673	(N6 ₄)	4.4	6054
				3.5	5746	(N ₂ 6)	2.5	6316
				3.6	5747		3.1	6350
λ _{max.} : 308-308.5μ			(O:N ₂ 5:C) (6)	4.2	6102	(N ₂ 6) (6) (N:N:N) ₂	4.2	6393
(C:C) ₁₂	4.5	221	(N ₂ 66)	3.5	6661	(N ₂ 6:O)	3.8	6396
(N:C) (C:C) ₂	4.6	485	(N ₂ 6 ₃)	4.0	6798	(N ₂ 6:O) (6)	3.7	6520
	4.6	490	(N ₃ 65) (6)	4.5	7005	(N ₂ 66)	3.9	6680
(O:C) (C:C)	4.1	732		4.4	7006	(N ₂ 665)	4.4	6776
(O:C) (C:C) ₂	4.3	820	(O5) (O:N) O	4.1	7495	(N ₂ 6 ₃)	2.8	6792
	4.4	824				(N ₄ 65)	3.7	7097
(O:C) (C:C)	1.3	947	(O:ON5:C) (6) ₂	4.3	7813		4.0	7161
(O:C) ₂ (C:C) O	4.0	1121	(O:ON5:C) (6) ₂ (O:N) O	4.1	7874	(O6:O) (O:C) O	4.0	7618
(6)		1744						
(6) ₂	4.4	1930		4.1	7877	(O66:O) (6)	4.6	7727
(6) (C:C) ₂	4.5	2058	(S5) (O:C) ₂ O	4.2	8011	(SN65:N)	3.7	8336
(6) ₂ (C:C) ₄	4.4	2115				(SeSN ₂ 6655)	3.6	8443
(6) ₂ (N:C) ₂	4.6	2535	(SN65) (6) (O:N) O		8288			
(6) (N:C) (C:C)		2585						
(6) (N:C)	3.4	2623						
(6) (O:C)	4.1	2674						
	3.4	2725						
(6) ₂ (O:C) (C:C)	3.3	3047	λ _{max.} : 309-309.5μ					
	4.3	3074	(C:C) ₃ (C:C)	4.2	286	(C:C) ₇	5.7	241
(6) (O:C) O	4.4	3194	(N:C) (C:C) ₂	4.3	496	(N:C) (C:C)	4.1	500
	3.6	3226	(N:C) (C:C) ₃	4.5	510	(O:C) (C:C)	1.6	659
	3.5	3252	(O:C) ₂ (C:C) ₂ O	4.4	1130		1.7	672
		3263					1.6	682
	3.6	3264	(O:C) (O:C) (C:C) O	4.0	1195		4.2	733
	3.5	3302				(O:C) (C:C) ₂	3.8	782
(6) (O:C) (C:C) O	4.2	3354	(6)	3.3	1467		4.5	821
					1830	(O:C) (C:C) ₇	4.0	874
(6) (O:N)	4.1	3475	(6) ₂ (N:N)	4.1	2283	(6)		1559
(6) (O:N) (C:C) O		3795	(6) (O:C) (C:C)	4.2	2995	(6) ₂	4.6	1868
				4.1	3004	(6) ₅	4.8	1975
(6) (O:N) (N:C) (N:N) O	4.2	3859	(6) (O:C) O		3227	(6) ₅ (N:N) ₄	4.2	2391
				3.5	3245	(6) (N:C)		2440
(O:6:O)	2.9	3959	(6) (O:N) O	4.3	3529	(6) ₂ (N:C) ₂	4.6	2541
	2.6	3960		3.2	3645	(6) ₄ (N:C) ₂	4.1	2570
	4.2	4005	(6) ₂ (O:N) O	4.3	3753	(6) ₂ (N:C) (C:C)		2601
(O:6:N)	3.9	4034				(6) (O:C)	4.0	2672
							2.7	2687

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	2.3	2688	(N66:O) (O:C)	4.1	5905	(66) (O:C)	3.9	4268
	2.0	2690	O	3.9	5907	(6 ₄)	4.7	5003
	3.8	2732	(N ₂ 6)	2.6	6139	(6 ₄) (O:C)	4.1	5031
	4.5	2760		3.5	6276	O		
(6) ₂ (O:C)	3.8	2887		4.0	6315	(6 ₄ 5) (O:C) ₂	4.7	5064
(6) ₂ (O:C) ₂	3.2	2918	(N ₂ 66)	3.9	6669	N		
(6) (O:C) (C:C)	4.1	2993		3.6	6682	(6 ₅)	4.8	5087
(6) ₂ (O:C) (C:C)	4.4	3046	(O:N ₂ 66:O)	4.0	6759	(6 ₅ :O)	4.5	5103
	4.1	3088	(N ₃ 65)	3.9	6975	(6 ₆)	3.8	5109
	4.2	3090	(N ₄ 65)	4.5	7139	(N65) (O:C)	4.1	5578
(6) ₃ (O:C) (C:C)	4.5	3125	(O:N ₄ 65:O)	3.7	7252	(N65) (6) (O:C)	3.7	5583
(6) (O:C)	3.4	3186		4.0	7254	(N66)	3.8	5657
O	2.8	3188	(O5) (N:C) (C:C)		7428		3.8	5658
(6) (O:C) (C:C)	4.2	3346	(O5) (O:C) (C:C)	4.3	7444		3.0	5691
O			(O5) (O:N) ₂	4.1	7496		3.8	5771
(6) (O:C) ₂ (O:C)	3.4	3409	O			(N ₂ 5) (6) (O:N)	4.1	6089
O			(O5) (O:N) (O:C)	4.1	7507	O		
(6) (O:N)	3.1	3627	O	4.1	7508	(N ₂ 6)	2.8	6137
O	3.2	3664	(O6:O) (O:C)	4.1	7607		3.6	6332
	3.2	3667	(O65) (6) ₂	4.0	7631		3.5	6356
	3.1	3668		4.0	7632	(N ₂ 6:O)	4.1	6430
(6) (O:N) ₂	3.2	3704	(ON5) (O:C)	4.1	7788		3.7	6507
O				4.1	7789	(N ₂ 6:S)	4.3	6559
(6) ₂ (O:N) (N:N)	4.3	3812	(O:ON5:C) (6) ₂ (C:C)	4.2	7845	(S:N ₂ 6:O)	3.9	6616
O			(O:ON5:C) (6) ₂ (O:N)	4.2	7886	(N ₂ 66:O)	3.6	6738
(6) (O:N) (O:C)		3860	O			(O5) (O:C) (C:C)	4.3	7480
O	3.4	3864	(ON65) (6) (O:N) ₂	4.5	7924	O		
(O:6:C)	4.4	4007	O			(O5) (O:N ₂ 6:O)		7554
(7:O) (6) (C:C)	4.5	4086	(ON ₂ 5:O) (6)	3.7	7943	(O66:O) (O:C)	3.8	7681
(7:O) (6) (O:C) (C:C)	4.5	4087	(S5) (O:C) (C:C)	4.1	8023	O		
O	4.4	4090				(O66:O) (6)	4.0	7692
(66) (N:C)	3.9	4252	(S5) (6) (O:C)	4.3	8053			7696
(66) (O:C) (C:C)	4.4	4287	O				4.0	7698
(66) (O:C) (C:C)	4.3	4326	(S65) (O:C)	3.6	8110			
O			O					
(O:6 ₃ :O)	5.2	4735	(SN65:S)	4.3	8341			
(6 ₄) (C:C)	4.1	5012	(Se665) (O:N)	3.9	8417	λ _{max.} : 312-312.5μ		
(6 ₄) (N:C)	5.0	5021	O			(C:C) ₄		190
(6 ₅)	4.5	5066	(SeN65:S)	4.3	8437		4.2	191
	5.5	5080				(O:C) (C:C)	1.8	683
(6 ₅) (N:C)	4.9	5092					3.9	753
(6 ₅) (O:C)	4.5	5093	λ _{max.} : 311-311.5μ			(O:C) (C:C) ₃	4.6	837
(6 ₆)	4.9	5124				(6)	3.2	1452
	4.3	5131	(O:C) (C:C) ₃	4.5	846			1680
(N6)	3.8	5309	(6) ₂	4.5	1873		3.4	1695
(N6) (6) (C:C)	4.4	5455	(6) ₂ (N:N)	4.1	2281		3.7	1849
(N6) (N5)	4.0	5493		3.9	2342	(6) ₄ (C:C)	4.2	2126
(N6:O)	3.9	5528	(6) ₂ (N:N)	3.9	2403	(6) ₂ (N:N)	4.3	2227
(N66)	3.7	5674	O				4.1	2282
	3.2	5737	(6) ₂ (N:C) ₂	4.6	2542	(6) ₃ (N:N) ₂	4.5	2374
	3.5	5789	(6) (O:C) (C:C)	4.2	2994	(6) (N:C)	4.6	2441
	3.6	5793		4.2	2997	(6) ₂ (N:C) (C:C)	4.4	2637
(N66:O)	3.9	5888	(6) ₂ (O:C) (C:C)	4.4	3085	(6) (O:C)	4.4	2697
	3.7	5895	(66)	3.7	4204			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) (O:C) O	4.5	3195	$\lambda_{\max.}: 313-313.5\mu$			$\lambda_{\max.}: 314-314.5\mu$		
	3.8	3196						
	3.4	3210	(C:C) ₄	4.7	188	(C:C) ₃	4.4	179
(6) (O:C) (O:C) (C:C) O	4.2	3437	(C:C) ₂ (C:C) ₄	4.3	284	(N:C) (C:C)	4.6	412
(6) (O:N)	4.0	3466	(N:C) (C:C) ₂	4.7	492	(N:C) (C:C) ₂	4.8	491
(6) (O:N) O	4.0	3580	(N:C) (C:C) ₃	4.4	512	(O:C) (C:C) ₂	3.5	810
	2.8	3614	(N:C) (C:C) (C:C) ₂	4.7	559	(O:C) (C:C) ₃	4.1	839
(6) (O:N) ₂ O	3.4	3698	(O:C) (C:C)	1.4	641	(O:C) (C:C) (C:C) ₂	4.2	956
	3.4	3707		1.8	664	(6)	3.6	1699
	3.2	3711	(O:C) (C:C) ₂	3.7	826	(6) ₂	3.8	1911
	3.2	3714		4.2	831		3.8	1912
(6) ₂ (O:N) ₂ (N:C) ₂ (C:C) ₂ O	4.6	3857	(O:C) (C:C) ₃	4.8	843	(6) (C:C)	3.5	2016
(6) (O:N) (O:C)	3.9	3871	(O:C) (C:C) (C:C) ₂	4.4	954	(6) ₂ (N:N)	4.1	2225
(N:6:N)	4.6	3916	(6) ₂	4.1	1890		4.3	2335
(7:0) (6) (C:C)	4.4	4082	(6) ₂ (C:C) ₂	4.5	2100	(6) (N:C)	4.3	2439
(66)	4.1	4138	(6) ₂ (N:N)	4.3	2160	(6) (O:C)	3.5	2667
	2.3	4151	(6) ₃ (N:N)	4.0	2355	(6) (O:N)	4.0	3454
(66) (O:C)	3.9	4278	(6) (O:C)	3.9	2758	(6) (O:N) O	3.2	3633
(66) (6)	4.2	4363	(6) ₂ (O:C)	4.4	2906	(N:6:N)	4.6	3919
(6 ₃) (6)	4.5	4714	(6) (O:C) ₂ (C:C) ₃ O	4.5	3372	(O:6:O)	4.3	4004
(O:6 ₃ :O)	3.8	4747	(6) (O:N)	4.2	3528	(66) (O:C) O		4298
(7665) (O:N) O	4.4	5057		3.1	3629	(66) (O:C) (C:C) O	4.5	4325
(6 ₉ 5 ₂)	4.5	5192	(6) (O:N) (C:C) O	3.2	3665	(66) (6)	2.8	4357
(N6)		5290	(66) (O:C) (C:C) O	4.1	4324	(6 ₃)	4.2	4639
(N66)	3.5	5764	(66) (6)	4.2	4361	(6 ₃ 5:C) (O:C) O	4.0	4892
	3.7	5769	(O:6 ₃ :O)	3.7	4789	(6 ₅)	5.0	5078
	3.7	5775	(6 ₅)	5.2	5119	(N6) ₂ (6) (C:C) ₂	4.7	5467
	3.6	5795	(N6)	3.5	5297	(N66)	3.5	5656
(N66) (6)	4.0	5823	(N6) (O:C) (C:C)	4.1	5414		3.3	5665
(N66) (6) (C:C) ₃	4.4	5837	(N6:O)	4.0	5541		3.4	5668
(N665)	3.8	5942	(N66)	3.0	5682		3.9	5671
(N ₂ 6:O)	3.6	6512		3.8	5773		3.9	5716
(N ₂ 6:S)	4.3	6544		3.2	5774		3.1	5741
	3.7	6554	O: O:N ₂ 5:C (6)	4.3	6117		3.3	5768
(S:N ₂ 6:O)	3.8	6610	(N ₂ 6:O) (6)	4.3	6118		3.5	5794
(N ₂ 66:O)	2.8	6715	(N ₂ 65)	3.8	6515	(N66:O)	3.6	5868
(O:N ₂ 66:O)	4.0	6760	(N ₂ 66)	3.7	6641		3.8	5881
(N ₂ 75) (6)	4.0	6764		3.8	6672	(N66:O) (6)	4.2	5913
(N ₄ 65)	4.2	7137		3.7	6679	(N ₂ 66)	3.9	6677
(N ₄ 66:O)	3.8	7316		3.5	6687	(N ₄ 65)	3.6	7069
(O5) (O:C) (C:C)	4.4	7443	(N ₄ 65)	4.4	7140		3.6	7142
(O66:O) (6)	4.6	7733		4.4	7145			
(O665)	4.5	7759		4.0	7162	O: O:N ₄ 66:O	3.7	7343
(O6 ₅)	4.2	7787	(N ₄ 65:O)	3.7	7180	(O5) (O:C) (C:C)		7442
(O:ON5:C) (O5) (6)	4.3	7896	(O5) (O:C)	1.8	7435	(O5) (O:N) (O:C) O O	4.1	7510
(SN65:S)	4.4	8345	(O5) (O:C) (C:C) O	4.3	7481			
			(O665)	4.2	7749	(O5) (6) ₂	4.4	7524
			(S665) (O:N) O	4.0	8151	(O665)	4.0	7752
						(S5) (O:C)	4.2	8000
						(S5) (6) ₄	4.2	8044

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(S ₂ 55)	3.9	8159	(6 ₄)	4.1	4903	(6) ₃ (N:N) ₂	3.6	2371
(SN5) (6) (C:C)	4.3	8199		4.2	4954	(6) (N:C)	3.5	2462
(SN665)	4.0	8350		4.6	4980	(6) ₄ (N:C) ₂	4.3	2573
			(7665)	4.6	5056	(6) (N:C) (C:C)	4.4	2640
$\lambda_{\max.}: 315-315.5\mu$			(6 ₅) (6) ₂	4.7	5097	(6) (O:C)	3.5	2659
			(6 ₅ :O)	4.5	5104		3.5	2735
(C:C) ₃	4.2	166	(6 ₇)	4.8	5150		3.9	2830
(O:C) (C:C)	1.7	667	(6 ₈)	4.9	5172	(6) (O:C) (C:C)	4.4	3002
(O:C) (C:C) ₂	4.5	821	(N6)	3.5	5272	(6) (O:C)	3.7	3236
(O:C) (C:C) ₃	4.6	836	(N66)	3.8	5659		3.8	3239
	4.2	844		3.7	5672	(6) (O:N) ₂	3.3	3705
(N6)		1440		3.3	5676			
(6) ₄ (C:C:C:C)	3.6	2144		3.4	5732	(6) ₂ (O:N) (O:C) (C:C)		
(6) ₅ (N:N) ₄	4.4	2392		3.5	5788		4.5	3878
(6) (N:C)	4.5	2422	(N ₂ 6)	3.5	6160	(7:O)	3.9	4041
	4.2	2427		3.5	6364	(66) (O:C) ₂	3.6	4311
(6) ₂ (N:C) ₂	4.5	2540		3.5	6355			
(6) (N:C) (C:C)	4.6	2592	(N ₂ 6) (6) (N:N)	4.2	6392	(N6) (N5)	4.2	5491
(6) (O:C)	4.3	2813	(N ₂ 6:O) (6)	3.9	6526	(N66)	3.5	5663
(6) ₂ (O:C)	4.2	2896	(N ₂ 65) (O:N)	3.9	6652		3.9	5670
(6) (O:C) (C:C)	4.2	2970					3.6	5770
(6) ₂ (O:C) (C:C)	4.3	3062	(N ₂ 66)	3.8	6662		3.6	5772
(6) ₂ (O:C) (C:C) ₃	3.9	3106		3.8	6663		3.5	5784
(6) (O:C)	3.6	3198	(N ₃ 65) (O:N)	3.9	6981	(N66) (6)	4.2	5825
				3.8	6984	(N66:O)	3.8	5869
(6) (O:N)	4.0	3470	(N ₄ 65)	4.3	7141		4.0	5878
(6) (O:N)	3.1	3484	(N ₄ 65:O)	3.7	7179	(N665) (O:N) ₂	4.1	5956
	3.3	3587	(N ₄ 66)	3.8	7313			
	3.7	3609	(N ₄ 66:O)	3.9	7318	(N ₂ 6)	3.6	6331
	3.2	3634	(O5) (6) (N:C) (C:C)	4.3	7434		3.6	6336
	3.2	3646	(O5) (O:N)	3.9	7492		4.0	6346
	3.2	3662				(N ₂ 6) (6) (C:C)	4.4	6385
(6) (O:N) (C:C)		3781	(O6:O)	3.7	7600	(N ₂ 6:S)	4.4	6563
				3.7	7601	(N ₂ 66) (6) (C:C) ₃	4.5	6711
(6) ₂ (S:C)	4.2	3905	(O66:O) (6)		7705	(N ₂ 66:O) (O:N)	4.0	6744
(O:6:O)	2.9	3958			7710			
	3.0	3986	(S5)	2.4	7976	(N ₂ 665:O)	3.9	6788
(7:O) (O:C)	4.2	4063	(S5) (N6) ₄	4.2	8054	(O6:O)	3.8	7599
			(SN5:O) (6) (C:C)	4.3	8224	(O:O65:C) (6)	4.3	7635
(66)	3.7	4166				(O665)	4.4	7755
	2.6	4191				(O:ON5:C) (6) ₂ (O:N)	4.1	7853
	2.4	4195	$\lambda_{\max.}: 316-316.5\mu$					
	2.4	4196	(C:C) ₆ (C:C) ₂	5.2	292	(ON65) (6)	4.5	7916
	2.5	4197	(N:C) (C:C) ₃	4.5	514	(S665) (O:C)	4.2	8140
(66) (O:C) (C:C)	4.4	4289	(N:C) (C:C) (C:C) ₂	4.7	562			
	4.5	4290	(O:C)	2.2	612	(SN5) (6) ₂ (C:C)	4.3	8200
(66) (6) (N:N)	4.4	4385	(O:C) (C:C)	1.9	946	(SN65:N) (O:C)		8337
	4.4	4388	(6) ₂ (C:C)	4.2	2092	(SN ₂ 6655)	4.3	8400
(75) (O:C) ₂	4.8	4587	(6) ₂ (N:N)	4.3	2159	(O:SO655:O)	3.5	8404
				4.2	2172			
(6 ₃)	4.2	4661		4.1	2223			
	3.0	4666		4.1	2226			
(O:6 ₃ :O)	3.8	4790		4.3	2314			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.}: 317-317.5\mu$								
(O:C) ₂ (C:C) ₃	4.7	1142	(S65) (6) (N:C)	3.9	7724	(O:N ₂ 5:C) (6)	4.4	6107
(6) ₆	4.8	1976		4.1	8112	(N ₂ 6)	3.4	6167
(6)(C:C) ₂	3.7	2054	$\lambda_{\max.}: 318-318.5\mu$			(N ₃ 65) (O:N)	3.8	7002
(6) ₂ (N:N)	4.2	2235	(C:C) ₄		186	(O5) (O:C) (C:C)	4.4	7484
(6)(N:C)	4.3	2459	(N:C) (C:C) (C:C) ₂	4.4	561	(O5) (6) ₂	4.4	7515
(6) (O:C)	4.3	2713	(O:C) (C:C)	1.6	688		4.4	7516
(6) ₂ (O:C)	3.6	2892	(O:C) (C:C) ₃	4.5	845	(O:O65:C) (6)	4.4	7640
(6) (O:C) (C:C) ₂		3022	(S:C:S)	2.0	1315	(O66:O) (6)		7704
(6) (O:N)	4.0	3581	(6)	4.1	1506	(O635)	4.3	7784
	3.5	3583	(6) ₂ (C:C) ₂	3.7	1676	(S5) (O:C)	4.2	7996
	4.4	3611	(6) ₂ (N:N)	4.6	2106			
(6) (O:N) ₂	3.9	3639		4.3	2156			
	3.4	3717		4.0	2195	$\lambda_{\max.}: 319-319.5\mu$		
(6) ₂ (O:N)	4.4	3752	(6) (O:C)	3.8	2333	(C:C) ₃	4.2	169
(N:6:N)	4.4	3917		3.9	2670	(O:C) (C:C)	1.4	662
(66)	2.5	4152		3.6	2765	(O:N)	2.4	1246
	3.8	4199	(6) ₂ (O:C) ₂	3.8	2831	(6) ₂	4.2	1923
(66) (6)	3.9	4200	(6) (O:C) (C:C)	3.9	2925	(6) ₂ (N:N)	4.3	2158
(75) (O:N)	4.3	4360		4.3	3356		3.9	2326
	4.3	4589	(6) (O:C) (O:C) (C:C)	4.3	3440	(6) (N:C)	3.6	2454
(6 ₃) (6)	4.4	4712			3787	(6) ₄ (N:C) ₂	4.4	2571
(O:6 ₃ :O)	3.8	4749	(6) (O:N) (C:C)			(6) (O:C)	3.6	2665
(6 ₄)	4.1	4997					3.6	2731
(N6) ₂ (N:N)	4.2	5408	(6) ₂ (O:N) ₂ (N:C) ₂	4.5	3852		1.8	2812
(N6:O)	4.2	5525				(6) (O:C) ₂	3.5	2843
(N66)	3.1	5753	(O:6:O)		3983	(6) ₂ (O:C) ₂	4.1	2921
	3.7	5767			3984	(6) (O:C) (C:C)	4.3	2959
	3.5	5776	(O:6:N)	4.2	4030	(6) (O:C) (C:C) ₂	4.5	3366
	3.5	5785	(66)		4142			
(N66) (6) (C:C)	3.9	5831		2.9	4194	(7:O)	3.9	4045
(N66) (6) (O:N) ₂	4.1	5845	(66) (O:C)	3.3	4272	(66)	2.5	4102
			(66) (6) ₃ (O:C)	4.5	4435	(66) ₂	3.1	4225
(N66:O)	4.0	5866	(6 ₃) (6) ₂	4.1	4722	(66) (6) (N:N)	4.4	4413
	3.7	5870	(O:6 ₃ :O)	3.7	4742	(6 ₃)	3.4	4663
(N6 ₄)	4.4	6061			4837	(6 ₄)	4.2	4902
(O:N ₂ 5:C) (6)	4.5	6112	(6 ₃ 5:N)	3.6	4895	(6 ₅)	5.0	5079
(N ₂ 66)	3.7	6666	(6 ₄ 5)	4.4	5059	(N66)	3.1	5738
(N ₂ 66:O) (O:N)	4.1	6750	(6 ₅ :O)	4.1	5100		3.5	5766
			(6 ₆)	5.2	5125		3.6	5787
(N ₄ 65)	4.1	7160	(N65:O)	3.5	5596	(N ₂ 6:O) (6)	3.8	6525
(O5) (O:C) ₂	4.4	7476	(N66)	3.6	5661	(O5) (N:C) (C:C)		7429
				3.4	5664	(O5) (6) ₂	4.5	7523
(O5) (O:N)	4.0	7494		3.5	5666			
				3.5	5667	$\lambda_{\max.}: 320-320.5\mu$		
(O:O65:C) (6)	4.3	7639		3.9	5722	(O:C) (C:C) ₂	4.4	822
(O66:O)	4.2	7678	(N66:O)	3.7	5782	(S:C)	4.5	1305
(O66:O) (6)		7708	(N66:O) (6)	4.0	5867	(6) ₂ (N:N)	4.3	2161
				4.3	5910		3.8	2189

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.3	2191	(N ₂ 6:O) (6) (O:N) O	4.0	6533	(N6)	3.6	5288
		2209				(N6:N)	4.1	5503
	4.0	2240	(N ₂ 665)	3.6	6767	(N66)	4.1	5717
	4.3	2310	(N ₃ 65)		6967	(N ₂ 65)	4.1	7373
	4.0	2332	(05) (O:C) (C:C) ₆	3.8	7451	(06:O) (O:C) O	3.5	7617
(6) ₃ (N:N)	4.0	2363	(05) (O:C) (C:C) ₂ O		7485	(ON65) (O:N) O	3.8	7620
(6) ₃ (N:N) ₂	4.5	2365					4.2	7908
(6) ₄ (N:N) ₃	4.7	2384	(05) (O:N) O	4.0	7493			
(6) ₅ (N:N) ₄	4.0	2390				(S6 ₃ 5)	3.8	8156
	3.8	2393	(05) (O:N) (N:C) O	4.0	7502			
(6) ₂ (N:C) ₂	4.5	2553						
(6) ₂ (N:C) ₄	4.6	2562	(05) (6) ₃	4.4	7525			
(6) (O:C)	1.7	2648	(066:O)	4.2	7679			
		2657	(066:O) (6)	4.1	7699			
	1.7	2682	(S5) (O:C)		7997	(O:C) (C:C)	1.5	635
	1.6	2683	(S5) (6) (O:C) (C:C)	4.3	8051	(6)	3.7	1497
		2684	(S665) (O:N) O	4.2	8142	(6) ₂ (N:N)	4.3	2164
	1.8	2816					4.3	2309
(6) ₂ (O:C)	4.1	2889	(SN65) (6)	4.4	8285		4.3	2329
	4.3	2904	(SN ₂ 665)	3.9	8398	(6) (N:C)		2444
(6) ₂ (O:C) ₂	3.7	2928				(6) ₂ (N:C) ₂	4.0	2528
(6) (O:C) (C:C)	4.2	2952					4.6	2541
	4.2	2989				(6) ₄ (N:C) ₂	4.3	2579
(6) (O:C) (C:C) ₂	4.6	3020				(6) (N:C) (C:C)	4.7	2587
(6) ₂ (O:C) (C:C)	4.3	3050	(C:C) ₁₃	4.8	223	(6) ₂ (N:C) ₂ (C:C) ₂	4.7	2610
(6) (O:C) O	3.6	3187	(O:C) ₂ (C:C) ₃ O	4.7	1141	(6) ₂ (O:C)	4.0	2886
(6) (O:N) ₂ O		3688	(6)	4.7	1466	(6) ₂ (O:C) ₂	4.2	2926
(6) (O:N) (C:C) O	4.1	3793	(6) ₂ (N:N)	4.3	2157	(6) (O:C) (C:C)	4.4	3001
				4.3	2217	(6) ₂ (O:C) ₂ (N:N) O	4.5	3398
(N:6:C) (6) ₂	4.2	3939		4.2	2325	(6) ₂ (O:C) (N:C) (C:C) O	4.4	3404
(O:6:N)	4.1	4033	(6) (O:C)	4.1	2331	(6) (O:N) O	3.9	3595
(7:O)	3.8	4039			2722			
(66)	2.5	4110		3.6	2771	(6) (O:N) ₂ O	4.2	3683
	3.7	4126	(6) (O:C) (C:C)	4.3	2999		3.9	3696
	3.8	4131	(6) ₂ (O:C) O		3325		3.4	3708
	2.6	4192			3326	(7:O)	3.8	4040
	2.6	4193	(6) (O:N)	4.0	3455		3.7	4047
(66) (C:C)	3.9	4238	(6) (O:N) ₂ O	3.4	3715	(66)	1.6	4101
(66) (O:C)	3.8	4273					2.9	4103
(6 ₄)	4.0	4913	(6) (O:N) (C:C) O		3778		2.7	4104
(6 ₉)	4.8	5189					3.0	4107
(N66)	3.4	5660	(6) ₃ (O:N) (O:C) (C:C) O				2.7	4108
	3.2	5758		4.2	3882		2.2	4109
	3.5	5780	(66)	2.4	4112		3.4	4115
	3.6	5786		3.2	4114	(66) (O:C) (C:C) ₂	3.9	4174
	3.6	5790	(6 ₄)	4.0	4908		4.3	4293
	3.4	5791		4.1	4909	(6 ₃) (6)	4.4	4718
	3.6	5792		4.0	4939	(6 ₄)	4.1	4936
(N66) (6) (C:C)	4.2	5827		4.0	4940	(68)	5.1	5166
(N66:O)	4.0	5896		4.1	5002	(N6:O)	4.1	5523
(^O :N ₅ :C) (6)	4.5	6106	(6) ₅	4.0	5068	(N66)	3.7	5747
			(6) ₆	4.8	5130		3.6	5756
							3.8	5760

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N66) (N:N)	3.6	5810		4.0	3600	(6) ₂ (C:C) ₂	4.6	2109
(N66:O)	3.3	5871	(6) ₂ (O:N) O	4.3	3744	(6) ₂ (N:N)	4.2	2155
	3.3	5873					3.9	2242
	3.3	5874	(O:6:O)	2.9	3985		4.4	2273
	3.6	5884	(7:O) (6) (C:C)	4.3	4083		4.0	2327
	3.6	5885	(66)	3.4	4113		4.3	2330
(N665)	3.6	5944		3.4	4144		3.3	2337
(N ₂ 6)	3.0	6138		3.8	4173		4.0	2348
(N ₂ 6:O) (6) ₂		6527	(O:6 ₃ :O)	3.7	4733		4.3	2350
(N ₂ 6:S)	4.1	6545		3.7	4734	(6) (N:C)	3.8	2627
(N ₂ 65) (O:N) O	3.8	6654	(O:6 ₃ :O) (O:N) O	3.7	4841	(6) (O:C)	3.5	2723
						(6) (O:C) ₂	3.9	2837
(N ₂ 66)	3.3	6660	(6 ₄)	4.2	4907	(6) ₂ (O:C) ₂	4.1	2930
(N ₂ 66:O) (O:N) O	4.0	6749	(6 ₄) (C:C)	4.1	5012	(6) (O:C) (C:C) ₂	4.5	3365
			(6 ₆)	5.6	5127			
(N ₄ 65)	4.0	7157	(6 ₇)		5148	(6) ₂ (O:C) (N:C) (C:C) O		3401
(N ₄ 65:O)	3.8	7178	(N5) (6) ₂	4.4	5229			
(N ₄ 66)	4.0	7314	(N6:O)	3.9	5535	(6) ₂ (O:C) (O:C) O	3.8	3411
(O:N ₄ 6 ₃ :O)	3.2	7358	(N66)	4.2	5718			
(O5) (N:C) (C:C)	4.6	7427		3.6	5783	(6) (O:C) (O:C) (C:C) O	4.3	3438
(O5) (6) ₂	4.4	7521		3.8	5802			
	4.4	7522	(N665)	3.6	5927	(6) (O:N) O		3522
(O66:O) (6)		7709	(N ₂ 5) (6) (O:N) O	4.3	6086			
(O66:O) (O:C) O	3.7	7776				(6) (O:N) (C:C) O	4.1	3801
(S5) (O:C) ₂ O	4.3	8012	(N ₂ 66)	4.0	6664			
				3.9	6665	(66)	3.0	4111
				3.7	6681		2.9	4118
			(N ₂ 66) (O:N) O	4.0	6701		3.7	4181
λ _{max.} : 323-323.5mμ							3.9	4200
			(O66:O) (6)		7690	(665)	4.0	4598
(C:C) ₂	3.2	151	(O:ON5:C) (6) ₂	4.2	7823	(6 ₄)	4.1	4912
(C:C) (C:C) ₄	4.7	272	(S5) (O:N) ₂ O	4.1	8027	(7665) (O:N) O	4.3	5057
(O:C) (C:C)	4.6	657						
(O:C) (C:C) ₃	4.7	841	(S5) (6) ₂		8042	(6 ₅)	4.3	5072
	4.5	842	(SN65:S)	4.4	8343	(6 ₆)	5.1	5117
(6) ₂ (N:N)	4.1	2179				(6 ₉ 5 ₂)	4.5	5192
	3.9	2205				(N6)	3.9	5307
	4.3	2213	λ _{max.} : 324-324.5mμ			(N6)	3.9	5307
	4.4	2272				(N66)		5669
	4.4	2274	none		51		3.7	5777
(6) ₃ (N:N)	3.8	2361	(C:C) ₃	4.0	170		3.5	5789
(6) ₂ (N:N) O	4.2	2402	(C:C) ₅	2.4	239		3.7	5793
			(C:C) ₃ (C:C) ₂	4.6	288		4.2	5799
(6) (N:C)	3.7	2461	(O:C) (C:C)	1.8	637	(N66) (N:N)	3.5	5809
(6) (N:C) (C:C)	4.6	2596		1.4	658	(N66) (O:N) O	3.7	5814
(6) (O:C) ₂	3.4	2847		1.6	699			
(6) ₂ (O:C) ₂	3.6	2920		4.2	714	(N66:C) (N:6:C)	4.1	5853
	4.3	2929	(O:C) (C:C) ₄ O	4.9	1094	(N66:O)	3.5	5863
(6) (O:C) (C:C) ₂	4.6	3017				(N665)	3.6	5928
	4.6	3018	(O:C) ₂ (C:C) ₂ O	3.9	1131	(N ₂ 5) (6) ₂	4.3	6078
	4.4	3021				(N ₂ 6)	3.0	6150
(6) (O:N)	4.3	3464	(O:C) (O:C) (C:C)	1.6	1196		3.5	6168
(6) (O:N) O	4.2	3525					3.6	6229
	3.8	3596	(6) (C:C) ₂	3.7	2055			

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N ₂ 6:O) (6) (O:N) O	3.9	6532	(6) (O:C) (C:C) ₂ O	4.8	3369	(N ₂ 6:O)	3.8	6485
(N ₂ 66:O) (O:N) O	3.9	6743	(6) ₂ (O:C) (N:N) O		3388	(N ₂ 6:O) (6) (O:N) O	3.8	6531
(N ₂ 66)	4.4	6855	(6) (O:N) O	3.1	3481	(N ₂ 65)	3.7	6645
(N ₃ 65)	3.7	6974		3.4	3584	(N ₂ 66:O) (O:N) O	4.0	6747
(N ₄ 65)	4.2	7135	(6) (O:N) (C:C) O		3767	(N ₂ 635)	4.2	6840
(O:N ₄ 66:O) O	4.1	7349	(6) (O:N) (O:C) O	3.8	3870	(N ₄ 65)	4.3	7136
(O5) (O:C) (C:C) O	4.3	7482	(7:O)	4.0	4046	(N ₄ 66)	3.9	7310
(O5) (6) ₂	4.5	7514	(7:O) (6) (O:C) (C:C) O	4.4	4088	(O:N ₄ 66:O) O	3.8	7350
(O5) (6) (O:C) (C:C)	4.0	7548	(7:O) (6) (O:N) (C:C) O	4.2	4092	(O5) (O:N) (N:C) O	4.2	7506
(ON65) (6) (O:N) ₂ O	4.3	7928	(7:O) (6) (O:N) (O:C) (C:C) O O	4.5	4094	(O5) (6) ₃	4.4	7526
(SN65:S)	4.4	8346	(66)	3.3	4122	(O5) (6) ₄	3.7	7537
					4159	(O66:O) (6)	4.4	7691
λ _{max.} : 325-325.5μ			(66) (6) (O:C)	3.8	4434	(O:ON5:C) (6) ₂	4.2	7826
none	3.8	18	(O:66:O)	3.1	4476	(S5) (O:C) ₂ O	4.1	8018
(C:C) ₃		163	(6 ₃) (6)	4.3	4715	(O:S65:O)	3.4	8115
(C:C) ₅	4.7	202	(O:6 ₃ :O)	3.8	4732	(S665)	3.6	8133
([C:] ₉ C)	5.4	302		3.7	4738	(SN65:S)	4.4	8340
(N:C) (C:C) ₃	4.3	513		3.8	4744		4.2	8342
	4.4	515		3.4	4798		4.6	8347
	4.8	523		3.6	4834	(Se665)	3.3	8415
(O:C) (C:C) ₄ O	4.5	1096	(O:6 ₃ :O) (N:C)	3.7	4838			
(O:C) ₂ (C:C) ₂ O	4.7	1132	(O:6 ₃ :O) (O:N) O	3.6	4840	λ _{max.} : 326-326.5μ		
(O:C:C)	1.2	1239	(6 ₄)	4.0	4911	(C:C) ₅	4.9	199
(S:C)	4.3	1306	(O:6 ₄ :O)	4.2	5053	(O:C) (C:C)	1.6	665
(6) ₂ (N:N)	4.1	2154	(6 ₆)	5.4	5126		1.4	681
	3.7	2204	(6 ₇)	5.2	5154	(O:C) (C:C) ₃	3.9	833
	4.3	2214	(N6) (6) (C:C)	4.4	5459		4.1	834
	4.4	2215	(N6:O)	4.2	5537		3.9	835
	4.3	2233	(N66)	3.6	5695	(6) ₂ (C:C) ₂	4.5	2138
(6) ₂ (N:C) ₂	4.4	2530		3.2	5743	(6) ₂ (N:N)	4.0	2170
(6) (N:C) (C:C)	4.5	2597		3.5	5779	(6) (N:C)	3.8	2460
(6) ₂ (N:C) (C:C)	4.4	2605	(N66) (O:C) (N:N:N)	3.6	5811	(6) (O:C)	3.7	2768
(6) (O:C)	3.5	2656	(N66:O)	3.4	5864		3.9	2769
	4.2	2730		3.4	5890		3.4	2793
(6) ₂ (O:C)	4.1	2888		3.4	5891		1.9	2834
	4.0	2901	(N66:O) (O:C) O	3.9	5906	(6) (O:C) (C:C)		2972
	4.0	2902				(6) ₂ (O:C) (C:C) O	4.6	3385
(6) (O:C) (C:C)	4.1	3006	(N66:O) (6)	3.6	5911	(6) ₂ (O:N) O	3.4	3750
(6) (O:C) (C:C) ₂	4.6	3016	(N75) (N:C)	3.9	5921			
(6) ₂ (O:C) (C:C)	3.8	3091		3.9	5922	(7:O) ₂	4.2	4062
(6) ₂ (O:C) (N:N) N		3162	(N665)	3.6	5948	(7:O) (6) (C:C)	4.3	4084
(6) (O:C) (C:C) O	4.1	3347	(N665) (O:N)	3.9	5951	(66)	3.2	4119
			(O:N ₂ 5:C)	3.7	6099	(6 ₃)	2.6	4637
			(N ₂ 5)	3.3	6174	(6 ₃) (6)	4.5	4714
			(N ₂ 6)	3.6	6333	(6 ₄)	4.1	4937

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.0	4938	(6) (O:C)	3.3	3185	(C:C) ₄	2.3	238
(6 ₅) (6) ₂	4.8	5097	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$	3.6	3238	(C:C) (C:C) ₄	4.5	273
(6 ₆)	5.3	5128		3.6	3251	(N:C) (C:C) ₃	4.7	519
(6 ₇)	5.2	5139	(6) (O:C) (C:C)	4.2	3350	(O:C) (C:C)	1.1	634
	4.6	5141	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$				1.6	646
	4.7	5149	(6) ₂ (O:N) (N:N)	4.2	3815	(6) ₂ (C:C) ₂	4.7	2101
(N66)	4.2	5703	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(6) ₃ (C:C) ₄	4.7	2125
	3.3	5740	(6) ₃ (O:N) (O:C) (C:C)			(6) ₂ (N:N)	4.3	2198
	3.5	5778	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$	4.2	3879		4.3	2284
	3.7	5795		4.3	3881		3.3	2334
	4.1	5798	(O:6:O)	2.7	3968	(6) (N:C)	4.7	2446
	3.4	5805		2.5	3988	(6) (O:C)	3.7	2790
(N66) (6) (O:N)	4.0	5843		2.8	3990		3.8	2824
$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(7:O)	3.9	4049	(6) ₂ (O:C) (C:C)	4.1	3060
(N66:O)	3.8	5876		3.8	4052		4.2	3089
	3.9	5898		3.9	4053	(6) ₂ (O:C) (C:C) ₂	4.5	3092
(N6 ₃ :O)	4.0	6046	(66) (O:C) (C:C)	4.0	4321		4.5	3094
(N6 ₃ 5)	4.1	6048	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$	4.3	4322	(6) (O:C)	3.9	3446
(N ₂ 6)	3.6	6357	(66) (6) (N:N)	4.3	4408	$\begin{smallmatrix} \text{S} \\ \\ (6) \end{smallmatrix}$		
(N ₂ 66) (O:N)	3.7	6693	(6 ₃) (6)	4.1	4716	(6) (O:N)	4.1	3465
$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(O:6 ₃ :O)		4737	(6) ₂ (O:N) (N:N)	4.4	3813
(N ₂ 66) (6) ₂ (C:C) ₄	4.8	6713		3.5	4788	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$		
$\begin{smallmatrix} \text{O}:\text{N}_4\text{66}:\text{O} \\ \\ \text{O} \end{smallmatrix}$	3.7	7352	(6 ₃ 5)	4.0	4884	(O:6:O)	2.4	3999
			(6 ₄)	4.0	4910	(66)	3.4	4147
(O5) (6) ₂	4.4	7520		4.0	4975		3.3	4150
(O5) (6) (N:C) (C:C)		7543	(6 ₄) (O:C)	4.3	5027		3.4	4163
(O6:O)	4.0	7605	(6 ₅ :O)	4.0	5102		3.4	4164
(O66:O) (6)	4.9	7729	(6 ₉)	4.8	5183		3.4	4182
	4.4	7731	(N65) (O:C)	4.1	5577		3.6	4202
(SN5:S) (6) (C:C)	4.3	8229	(N65) (O:66:O) ₂	3.9	5593	(66) (O:C)		4298
(O:SN5: $\begin{smallmatrix} \text{N} \\ \\ \text{C} \end{smallmatrix}$) (6)	4.4	8234	(N66)	3.6	5794	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$	3.5	4302
				4.1	5796		3.3	4304
(SN65) (6) (O:N)	4.4	8287	(N66) (6)	4.3	5821	(66) (O:C) ₂	4.2	4313
$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(N ₂ 6:O) (6) (O:N)	4.0	6530	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$		
(SeN65:S)	4.5	8436	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(66) (6) (N:N)	4.3	4378
			(N ₂ 6:S)	3.9	6539		4.1	4397
			(O:N ₂ 6:O)		6590	(75)	4.2	4541
$\lambda_{\text{max.}}$: 327-327.5mμ			(S:N ₂ 6:O)	4.2	6611	(O:6 ₃ :O)	3.6	4791
			(N ₂ 665)	3.8	6766		3.5	4793
(N:C)	3.8	359		4.3	6786	(6 ₃ 5) (O:C)	3.9	4890
(N:C) ₂ (C:C) ₄	4.8	546	(N ₂ 6 ₃)	3.9	6815	$\begin{smallmatrix} \text{N} \\ \\ (6) \end{smallmatrix}$		
(O:C) (C:C) ₄	1.6	666	(N ₂ 6 ₃ 5)	4.2	6833	(6 ₅)	4.4	5069
(O:C) ₂ (C:C)	1.7	912	(N ₃ 66:O)		7011	(6 ₆)	4.8	5130
(O:C) ₂ (C:C) ₃	4.7	919	(N ₄ 65)	3.7	7088	(N6) (6) (C:C)	4.5	5460
(O:C) (C:C) ₄	4.7	1092	(O5) (6) ₃	4.4	7527	(N66)	3.7	5693
$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$			(ON65) (6)	4.5	7914		4.1	5702
(6)		1612	(ON65) (6) (O:N)	4.3	7926		3.9	5719
(6) ₂ (N:N)	4.2	2224	$\begin{smallmatrix} \text{O} \\ \\ (6) \end{smallmatrix}$				3.2	5728
	4.3	2339	(SN65:N)	3.8	8335		4.3	5797
(6) (O:C)	3.5	2720				(N66) (6)	4.0	5823
	4.4	2817				(N66) (6) (C:C)	4.3	5828
	3.8	2822	$\lambda_{\text{max.}}$: 328-328.5mμ			(N66:O)	3.5	5862
(6) (O:C) (C:C)	4.0	2955				$\begin{smallmatrix} \text{O}:\text{N}_2\text{5:C} \\ \\ \text{O} \end{smallmatrix}$ (6)	4.2	6121
			(C:C) ₁₅	4.5	228			

absorbing chromophore	loge	no.	absorbing chromophore	loge	no.	absorbing chromophore	loge	no.
(N ₂ 6 ₃ 5)	4.3	6842	(6 ₃ 5)	4.0	4885	(6) (O:N)	4.0	3474
(N ₂ 6 ₄)	4.2	6843	(6 ₄)	3.9	5005	(6) (O:N) ₂	4.0	3478
(N ₄ 65) (6)	4.3	7176	(6 ₅)	4.5	5074	(6) (O:N) ₂	3.3	3577
(N ₄ 665)	4.2	7353	(N66)	3.3	5692	₀		
	3.9	7354	(N66:O)	4.1	5866	(6) (O:N) ₂	4.0	3695
(O5) (O:N) (N:C)	4.2	7505		4.1	5867	₀		
₀				4.1	5872	(6) (O:N) ₂ (C:C) ₂		3810
(O5) (6) ₃	4.5	7529	(N66:O) (O:C)	4.0	5902	₀		
(O:ON5:C) (6) ₂ (C:C)	4.5	7844	(O:N ₂ 5:C) (6)	4.2	6119	(6) ₂ (O:N) ₂ (N:C) ₂	4.0	3850
(S5) (O:C) ₂	3.8	8010	₀			₀		
₀			(N ₂ 66) (O:N)	3.9	6698	(O:6:O)	3.2	3979
(S5) (O:N)	4.0	8026	₀			(66)	3.1	4207
₀			(N ₂ 66:O) (6) (O:N)	4.1	6756	(O:66:O)	3.4	4461
(S5) (O:N) (C:C)		8030	₀			(O:66:O) (66)	3.7	4523
₀			(N ₂ 665)	4.0	6769	(6 ₃)	2.6	4638
(S665) (O:N)	4.0	8147	(N ₄ 65)	4.3	7138	(6 ₄ 5) (N:C) ₂	4.9	5063
₀			(O5) (N ₂ 6) (N:N:N) ₂	4.4	7553	(6 ₆)	4.4	5122
(SN65) (O:N)	4.2	8278	(O66:O) (O:C)		7683		5.1	5135
₀						(N6) (6) (C:C) ₂	4.7	5462
(Se665)	3.4	8413	(S5) (O:N) (C:C)		8031	(N66)	3.8	5696
(Se665) (O:N)	4.1	8419	₀				3.7	5698
₀			(S5) (6) ₂ (O:C)		8050		3.4	5734
(SeN ₂ 65)	4.2	8439	(SN ₂ 665)	3.3	8396	(N66:O)	3.6	5893
							3.6	5894
						(N665) (O:N) (O:N)	4.0	5958
						₀		
$\lambda_{\max.}: 331-331.5\mu$			$\lambda_{\max.}: 332-332.5\mu$			(N6 ₃)	3.3	5963
(O:C) (C:C) ₄	4.5	859	(N:C) (C:C) ₃	4.4	516	(N6 ₃ 5)	4.1	6049
(O:C) (N:C) (C:C) ₃	4.1	1189		4.9	520	(N ₂ 6)	3.6	6162
₀			(O:C) (C:C) ₄	4.7	1093	(N ₂ 6:S)	3.7	6548
(6) ₂ (N:N)	4.2	2169	₀				3.6	6551
	4.2	2199	(6) ₂	4.4	1932	(S:N ₂ 6:O)	4.1	6617
(6) ₂ (N:C) ₂	4.7	2533	(6) ₂ (C:C) ₂	4.7	2107	(N ₂ 66) (O:N)	3.9	6694
	3.5	2560		4.7	2108	₀		
(6) (O:C)	2.2	2693	(6) ₂ (N:N)	4.2	2167	(N ₄ 65)	3.7	7087
	4.3	2738		4.0	2173	(N ₄ 65) (6)	4.1	7174
(6) ₂ (O:C)	4.5	2909		4.2	2216	(O5) (6) ₂	4.7	7517
(6) ₂ (O:C) ₂	3.9	2931		4.1	2338	(O5) (6) ₄	3.8	7533
(6) ₂ (O:C) ₂ (N:N)	4.4	3397	(6) ₄ (N:C) ₂	4.3	2572		3.9	7535
₀			(6) (O:C)		2660	(O:ON5:C) (6)	4.4	7797
(6) ₂ (O:N) ₂	4.5	3758		4.4	2716		4.5	7801
₀				4.4	2767	(ON65) (6) (O:N) ₂	4.5	7929
(66)	3.8	4145		3.4	2777	₀		
	3.3	4170		3.7	2796	(S5)	3.6	7969
	3.3	4171		4.0	2821	(O:S65:O)	3.4	8114
	3.4	4172	(6) ₂ (O:C) ₂	3.9	2923			
	3.3	4180	(6) (O:C) (C:C)	4.3	2951			
(66) (O:C)	4.0	4260	(6) ₂ (O:C) (C:C) ₂	4.5	3095			
(66) (6) (N:N)	4.3	4417	(6) (O:C) (C:C) ₂	4.5	3367			
₀			₀			$\lambda_{\max.}: 333-333.5\mu$		
(O:66:O)	3.5	4473	(6) ₂ (O:C) (N:N)		3395	(C:C) ₁₃	4.3	224
	3.4	4492	₀			(O:C) (C:C) (C:C)	2.2	949
(6 ₃)	2.6	4628	(6) ₂ (O:C) (N:N)	4.3	3400	(O:C) (C:C) ₄	4.7	1095
(O:6 ₃ :O)	3.7	4736	₀ ₀			₀		
						(6) ₂ (C:C)	4.4	2093

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6) ₂ (C:C) ₃	4.5	2139	λ _{max.} : 334-334.5μ			(6) ₂ (N:N)	4.1	2256
(6)(N:N)	4.0	2148					4.0	2296
(6) ₂ (N:C) ₂	4.5	2547	none	2.2	14		4.0	2304
(6)(O:C)	4.2	2795	(C:C) ₃	4.7	180	(6) ₂ (N:N)	3.9	2401
(6)(O:C)(C:C)	3.2	2962	(C:C) ₅	5.1	198	_O		
(6)(O:N)		3526	(6)	1.1	1576	(6) ₂ (N:C) ₂	4.6	2531
_O	3.3	3578	(6) ₂	4.7	1884	(6)(O:C)	3.5	2746
(6) ₂ (O:N) ₂ (N:C) ₂	4.3	3855	(6) ₂ (C:C) ₂	4.6	2102	(6) ₂ (O:C)(C:C) ₂	4.6	3096
_O			(6) ₂ (N:N)	4.2	2343	(6)(O:C)(C:C)	4.2	3351
(66)	3.9	4168		3.9	2346	_O	4.3	3355
	3.5	4184	(6) ₃ (N:N)	4.5	2352	(6)(O:N) ₃	3.7	3734
(66)(O:C)	3.1	4297	(6)(N:C)	4.5	2428	_O		
_O			(6)(O:C)	4.5	2671	(6) ₂ (O:N)	3.8	3740
(66)(O:N)	3.6	4346		3.4	2740	_O		
_O				3.3	2748	(6) ₂ (O:N) ₂	4.2	3757
(66)(6)(O:C)	3.3	4433	(6) ₂ (O:C) ₂ (N:N)	4.3	3399	_O		
(O:66:O)	3.4	4469	_O			(7:O)	3.8	4056
	3.5	4474	(6)(O:N)	4.0	3592	(7:O)(6)	3.8	4066
	3.2	4493	_O			(7:O)(6)(C:C)	4.1	4085
	3.6	4495	(6)(O:N) ₂	3.3	3709	(66)	3.6	4124
	3.4	4496	_O				3.6	4186
(O:665:O)	3.9	4620	(66)	3.4	4153	(66) ₂ (N:N)	4.4	4246
(6 ₃)	2.5	4625		3.7	4155	(66)(6)	4.2	4361
	2.4	4688		3.5	4205	(O:66:O)	3.4	4454
	2.5	4689	(66)(O:C)(C:C)	4.2	4291		3.4	4467
(O:6 ₃ :O)	3.7	4833	(66)(6) ₂ (N:C)	4.7	4419		3.1	4472
(6 ₄)	4.7	4904	(O:66:O)	3.4	4463		3.3	4480
	4.1	4936	(6 ₃)	2.7	4640		3.3	4484
	3.9	4989		3.6	4663		2.6	4631
	4.1	5002		2.4	4690	(6 ₃)	2.7	4632
(N6)(6)(C:C) ₂	4.7	5461	(6 ₃)(O:C)(C:C)	4.1	4702		2.6	4634
(N66)	4.2	5718	(6 ₄)	3.9	4986		2.7	4636
	4.2	5723		3.8	4990		2.8	4657
	3.3	5731	(O:6 ₄ :O)	3.6	5055		2.4	4692
	3.7	5781	(6 ₅ :O)	3.8	5105	(O:6 ₃ :O)		4765
(N66)(O:N)		5819	(6 ₅)	5.1	5108	(6655)(N:C) ₂	4.7	4871
_O			(6 ₇)	5.2	5158	(6 ₄)	4.1	4958
(N66)(6)(O:C)		5840	(N66)(N:N)	3.6	5810	(6 ₄)(O:C)	4.1	5025
_O			(N66:O)(6)	4.1	5909	(6 ₆)	4.8	5133
(N66:O)	4.1	5897	(N ₂ 6 ₃)	4.0	6816	(N6)(6) ₂ (C:C) ₂	4.4	5464
_O			(N ₂ 6 ₃ 5)	4.3	6834	(N66)	3.6	5662
(O:N ₂ ⁵ :C)(6)	4.5	6108	(O:N ₄ 6 ₃ :O)	3.2	7357		3.5	5700
(O:N ₂ 66)	4.4	6116	(O5) ₂ (N:C) ₂	4.6	7426		3.1	5758
	4.2	6675	(O5)(6) ₄	3.9	7531		4.2	5799
	3.4	6678	(O66:O)(6)		7700		3.9	5800
(N ₅ 65)(6)	4.4	7381	(O6 ₃ :O)	4.6	7769		4.1	5803
(O66:O)(6)		7693	(ON65)(6)(O:N)	4.3	7927	(N66)(O:N)	3.7	5815
(O665)	4.2	7750	_O			_O		
(ON ₂ 5:O)(6) ₂	4.0	7944	λ _{max.} : 335-335.5μ			(N665)	3.6	5944
(SN5:O)(6)(C:C)	4.2	8225					4.0	5945
(SN65)(6)	4.2	8284				(N ₂ 5)(6)(O:N)	4.3	6088
(SN65)(6)(O:N)	4.3	8290				_O		
_O			(N:C)(C:C) ₃	4.7	521			
			(6)	3.8	1693	(O:N ₂ ⁵ :C)(6)	4.3	6110
			(6) ₂ (C:C)	4.4	2091			

[illegible]

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(665) (O:C) ₂	3.4	4487	(N ₂ 6)	2.6	6131	(66) (6) (C:C) ₂	4.8	4373
	4.2	4599	(N ₂ 66:O) (O:C) O	4.1	6741	(66) (6) (N:N) O	4.3	4416
(6 ₃)	4.1	4600						
	3.7	4623	(N ₄ 6 ₅)	4.7	7369	(O:66:O)	3.5	4453
	2.7	4650	(N ₅ 6 ₅) (6)	4.5	7380		3.1	4458
	2.5	4652	(N ₅ 6 ₅) (6) (O:C) O	4.3	7383	(6 ₃)	2.7	4660
	2.5	4655				(6 ₄)	3.9	4905
(6 ₄)	4.7	4941	(O6:O) (O:C) O	4.0	7619		3.9	4926
	4.5	4966					3.8	4931
	3.9	4982				(6 ₅)	4.2	5086
(6 ₄ 5)	4.0	5062	$\lambda_{\max.}$: 340-340.5 μ			(N ₅)	2.5	5194
(6 ₅)	4.2	5072				(N6:O) (6)	4.0	5550
(6 ₇)	5.2	5153	none	2.4	26	(N66)	3.4	5690
(N66:O)	4.1	5883	(N:C) (C:C) ₃	4.9	517		4.0	5705
	4.2	5886		4.8	522		3.3	5759
(N66:O) (6)	4.2	5912	(O:C) (C:C)	4.4	712	(N66) (O:C) (N:N:N)	3.6	5811
(N ₂ 6:S)	3.5	6542	(O:C) (C:C) (C:C) ₃	4.4	957	(N66) (6) (O:N) ₂ O	4.1	5844
(O:N ₂ 6:O) (O:N) O	4.0	6605	(6)		1673		4.2	5846
			(6) ₂ (N:N)	4.4	2279	(N66:O)	4.0	5900
(N ₂ 66)	2.5	6686		4.4	2280	(N6 ₄)	3.7	6056
(N ₂ 66:O)	4.1	6719		4.3	2290	(O:N ₂ 5:C) (6)	4.2	6111
(N ₃ 6 ₅) (O:N) O	3.8	7000	(6) ₂ (N:C)	4.3	2514		2.5	6130
			(6) ₂ (N:C) ₂	4.3	2532	(N ₂ 6)	3.4	6337
(O ₅) (6) ₃	4.5	7529	(6) (O:C)	0.5	2685	(S:N ₂ 6:S)	4.1	6624
(O ₅) (6) ₄	4.5	7539		3.3	2712		3.9	6627
(O66:O) (6)		7721		3.5	2747	(N ₂ 66:O) (O:N) O	4.0	6753
(O6 ₄ 5)	4.5	7786	(6) ₂ (O:C)	4.1	2893			
(SN ₂ 665)	3.4	8397	(6) ₄ (O:C) ₂	2.7	2938	(N ₂ 665)	3.8	6766
			(6) (O:C) (C:C) ₂	4.3	3019		3.7	6781
			(6) (O:C)	3.4	3295		3.7	6845
$\lambda_{\max.}$: 339-339.5 μ			O			(N ₂ 6 ₄)	3.5	7086
			(6) (O:C) (C:C) ₂	4.3	3368	(N ₄ 6 ₅ :O)	4.3	7239
(C:C:C:C:C:C)	4.5	301	O			(N ₄ 66:O)	3.8	7317
(O:C) (C:C) ₂	4.4	778	(6) (O:N)	3.4	3524	(O:N ₄ 66:O)	4.0	7333
(6) ₄ (O:C)	4.8	2935	O	4.1	3615	(O:N ₄ 66:O)	4.0	7345
(O:6:O)	2.4	3970		3.2	3647			
(7:O) (6)	3.8	4080		4.1	3649	(O ₅) (O:N) (N:C)	4.1	7504
(O:66:O)	3.2	4477	(6) (O:N) ₂	4.1	3702			
(6 ₃)	3.7	4624	O			(O ₅) (6) ₂	4.4	7519
	3.6	4664	(6) ₂ (O:N) (N:N)	4.3	3821	(O ₅) (6) ₄	3.8	7532
	3.4	4667	O				3.9	7538
(6 ₃ 5:O)	3.6	4897	(6) (O:N) (O:C)	3.5	3865	(O66:O) (6)	4.3	7737
(6 ₄)	4.6	4965	O	3.9	3873	(O6 ₃ :O)	4.0	7770
	3.9	4992	(6) (O:N) (O:N) (O:C) O	3.7	3902	(ON ₅) (O:C)	4.3	7790
(6 ₄) (O:C) O	4.6	5034	O				4.3	7791
			(7:O)	4.0	4060	(SN665)	4.0	8352
(N6) (6) (O:C) (C:C)	4.3	5488	(65:C) (6)	4.3	4096			
(N66)	3.5	5683	(66)	3.5	4165			
	4.2	5703			4211	$\lambda_{\max.}$: 341-341.5 μ		
	3.8	5763	(66) (O:C)	3.2	4267			
	3.5	5804	(66) (O:C) O	3.2	4308	(6) ₂ (C:C) ₈	5.4	2142
(N66:O)	4.0	5882				(6) ₂ (N:N)	4.4	2229
	4.2	5887	(66) (O:N)	4.8	4345		4.4	2232
	4.0	5901	(66) (6)	3.9	4360	(6) ₂ (N:C) (C:C) ₂	4.6	2607

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
$(\text{O}:\text{N}_2\text{S}:\text{C}) (6)$	4.2	6114	$(\text{N}_3\text{C}_3) (\text{O}:\text{C})$ O	3.9	7013	(6_5)	3.8	4999
$(\text{N}_2\text{S}:\text{S})$	3.4	6536	(N_4C_6)	4.1	7308	$(6_5) (\text{N}:\text{C}:\text{O})$	4.2	5071
(N_2C_6)	4.1	6689	$(\text{O}:\text{N}_4\text{C}_6\text{O}) (\text{O}:\text{C})$ O	4.2	7347	(6_9)	5.1	5187
(N_4C_5)	3.2	7133	$(\text{O}:\text{N}_4\text{C}_6\text{O})$ O	4.0	7348	(N_6C_6)	4.2	5720
	4.1	7151	(N_5C_5)	4.5	7397	(N_6C_3)	3.6	5972
$(\text{O}_5) (\text{O}:\text{C}) (\text{C}:\text{C})_2$	4.5	7446	$(\text{O}_2\text{N}_2\text{C}_5\text{O})$	4.2	7946		3.6	6023
$(\text{O}:\text{ON}_5\text{C}) (6)_2 (\text{O}:\text{N})_2$ O	4.4	7888				$(\text{N}_2\text{C}_6\text{C}_5)$	3.7	6765
$(\text{SN}_5\text{S}:\text{S}) (6)_2 (\text{C}:\text{C})$	4.4	8230					3.8	6774
$(\text{SN}_6\text{C}_5) (6)$	3.8	8353				(N_4C_5)	4.6	7370
$(\text{SeN}_2\text{C}_5) (6)$	4.2	8440				$(\text{O}:\text{ON}_5\text{C}) (\text{O}_5) (6) (\text{C}:\text{C})$	4.5	7898
			$\lambda_{\text{max.}}: 348-348.5\text{m}\mu$				3.5	8020
			$(\text{C}:\text{C})_5$	4.7	201	$(\text{S}_5) (\text{O}:\text{C})_2$ O		
$\lambda_{\text{max.}}: 347-347.5\text{m}\mu$			$(\text{N}:\text{C})$	4.4	337	$(\text{O}:\text{SN}_5\text{C}) (6)$ O		8232
				4.4	338	$(\text{O}:\text{SN}_5\text{C}) (6)$ O	4.1	8235
$(\text{N}:\text{N}:\text{C})$	0.7	582	$(\text{O}:\text{C}) (\text{C}:\text{C})_3$	4.4	852	$(\text{SeN}_2\text{C}_5) (6)_2$	4.2	8441
$(\text{O}:\text{C})_2$	1.7	627	(6)	4.0	1504			
$(6)_2 (\text{N}:\text{N})$	4.4	2277	$(6)_2 (\text{C}:\text{C})_2$		2103			
	4.4	2278	$(6)_3 (\text{C}:\text{C})_2$	4.9	2124			
$(6) (\text{N}:\text{C})$	4.4	2427	$(6)_2 (\text{N}:\text{N})$	4.5	2192			
$(6)_2 (\text{N}:\text{C})_2$	4.6	2537		4.5	2219			
$(6) (\text{O}:\text{C}) (\text{C}:\text{C})$		2974		4.3	2288			
$(6) (\text{O}:\text{C}) (\text{O}:\text{C}) (\text{C}:\text{C})$ O	4.3	3439	$(6) (\text{O}:\text{C})$	4.4	2750	none	2.4	45
$(6) (\text{O}:\text{N})$ O	3.1	3614	$(6)_3 (\text{O}:\text{C})_2$	3.9	2798	$(6)_2 (\text{C}:\text{C})$	4.5	2078
$(6) (\text{O}:\text{N})_2$ O	4.2	3678	$(6)_2 (\text{O}:\text{C}) (\text{C}:\text{C})$	4.3	2933	$(6)_2 (\text{C}:\text{C})_3$	4.8	2110
$(6) (\text{O}:\text{N}) (\text{C}:\text{C})$ O		3776	$(6)_2 (\text{O}:\text{C}) (\text{N}:\text{N})$ O	4.3	3070	$(6) (\text{O}:\text{C})$	3.4	2726
$(7:\text{O})$	3.8	4041	$(6) (\text{O}:\text{N})_2$ O	4.3	3392	$(6) (\text{O}:\text{N})$ O	3.2	3608
	3.9	4058	$(6) (\text{O}:\text{N}) (\text{C}:\text{C})$ O	4.3	3680	(66)	3.4	3641
(66)	3.9	4168	$(6)_2 (\text{O}:\text{N})_2 (\text{N}:\text{C})_2 (\text{C}:\text{C})_4$ O		3784	(66)	3.4	4160
$(66) (\text{O}:\text{N})$	4.0	4343	$(\text{O}:\text{C}:\text{O})$	4.7	3858	$(66)_2$	3.4	4161
(75)	3.7	4530	$(\text{O}:\text{C}:\text{N})$	2.9	3981	$(66) (\text{O}:\text{N})$	4.3	4224
	3.7	4532	$(7:\text{O})$	1.2	4037	(75)	3.5	4224
$(75) (\text{O}:\text{C})$ O	3.7	4584	$(7:\text{O}) (6) (\text{O}:\text{N}) (\text{C}:\text{C})$ O	3.9	4055		3.7	4555
$(6_3) (66)$	4.3	4728		4.2	4092	(6_3)	2.5	4625
(6_4)	3.8	4973	$(66) (\text{C}:\text{C})$	3.7	4238		2.6	4628
	3.9	5005	(75)	3.8	4551		2.2	4637
$(6_4) (\text{C}:\text{C})$	4.5	5013	(6_3)	3.8	4630	$(\text{O}:\text{C}_3:\text{O})$	2.2	4638
(6_5)	4.2	5087		3.1	4686		3.9	4802
(6_8)		5167	$(6_3) (\text{C}:\text{C})$	2.5	4695	(6_4)	3.9	4817
(N_6C_6)	3.5	5681	$(6_3) (\text{O}:\text{C})$ O	3.2	4705	$(6_4) (\text{O}:\text{C})$ O	4.7	4959
	3.8	5761	$(6_3) (\text{O}:\text{N})$ O			(6_5)	3.9	5007
(N_6C_3)	3.9	5967	$(6_3) (6)$	3.6	4708		3.9	5035
$(\text{O}:\text{N}_2\text{S}:\text{C}) (6)$ O	4.3	6123				$(6_4) (6)$	4.9	5045
(N_2C_6)		6683				(6_5)	2.8	5067
$(\text{N}_2\text{C}_6\text{O})$	4.1	6723	(6_3C_5)	3.3	4712		4.0	5077
	4.0	6731		3.1	4718	(6_8)	4.6	5168
				3.9	4876	(6_{10})	5.3	5191
				4.0	4878	(N_6C_6)	3.6	5735
			(6_4)	4.3	4976	$(\text{N}_6\text{C}_6\text{O})$	3.7	5895
						(N_6C_3)	3.8	6022
						$(\text{N}_6\text{C}_4\text{S})$	4.2	6064
						(N_2C_6)	4.1	6691

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N ₂ 665)	3.7	6773	(6 ₄) (O:N)	3.8	5041		2.7	4636
(N ₃ 65) (O:N)	3.8	6999	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				2.7	4657
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(6 ₄ 5)	4.0	5062		3.8	4659
(S665) (O:N)	4.0	8146	(N6:N)	3.5	5501	(765)	3.6	4865
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(N66)	3.8	5706	(6 ₄)	3.9	4933
				3.7	5727		4.5	4962
λ _{max.} : 350-350.5μ				4.0	5801		3.9	4971
			(N66:O) (O:N)	3.9	5908		3.9	4974
(O:C) (C:C) ₃	3.9	849	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(6 ₄) (N:C)	4.7	5015
(O:C) ₂ (C:C)	1.6	913	(N665)	4.0	5945	(6 ₄) (O:C) (O:C)	3.8	5039
(O:C) (C:C) ₅	4.6	1097	(N6 ₃)	3.6	6014	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(N6 ₄)	3.7	6056	(N6 ₃)	4.1	6015
(O:C) ₂ (C:C) ₄	4.3	1143	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				3.7	6020
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(O:N ₂ 5:C) (6)	4.2	6120	(N ₂ 65) (O:N)	3.5	6657
(6)	3.9	1496	(N ₂ 665)	3.7	6785	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
	4.0	1500	(N ₄ 65)	4.3	7152	(N ₂ 66)	4.1	6667
(6) ₂ (N:N)	4.4	2218	(O:N ₄ 66:O) (O:C)	4.0	7337		4.1	6690
	3.9	2228	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(N ₂ 66:O)	4.1	6737
	4.4	2341	(O5) (O:C) (C:C) ₂		7445	(O66:O) (6)		7706
(6) ₃ (N:N) (N:N)	4.5	2405	(O6:O) (O:C)	4.3	7609	(O6 ₃ :O) (6) (O:C)	4.0	7778
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.5	2407	(O66:O) (6)		7702	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
(6) (O:C) ₂	3.8	2842	(S5) ₃	4.4	7980	(O:SN5:C) (6)		8233
(6) (O:C) (C:C) ₃	4.7	3025	(S5) (O:C) ₂	4.0	8014			
(6) (O:N)	4.2	3594	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	3.7	8017			
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		3638		3.5	8021			
	3.8	3657	(S66:O) (O:C)	3.9	8132			
(6) ₂ (O:N)	4.2	3745	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$					
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	4.2	3747	(S6 ₃ 5)	3.5	8157			
(O:6:N)	4.1	4036						
(7:O)	3.8	4045						
	4.4	4059						
	4.2	4061	λ _{max.} : 351-351.5μ					
(7:O) (O:C) (C:C)	4.2	4064	(N:C)	4.2	358	(C:C) ₆	4.6	206
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(O:C) (N:C)	4.4	962	(C:C) ₁₄	4.1	226
(66)	3.4	4162	(O:C) (C:C) (C:C) ₄	4.5	1155	(N:C) ₂	4.5	383
	3.2	4169	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				4.5	384
	3.4	4175	(6)	1.4	1533		4.5	385
(66) (O:C) (C:C) ₂	4.2	4295	(6) ₂ (N:N)	4.2	2222	(O:C) ₂ (C:C)	1.6	902
(66) (O:C) ₂	3.8	4312		4.4	2230	(O:C) (N:C)	4.4	966
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$				4.4	2276	(6)	4.0	1483
(O:66:O)	3.4	4481	(6) (O:C)	3.5	2751	(6) ₂ (N:N)	4.3	2312
(6 ₃)	2.7	4632	(6) (O:C) (C:C)	4.6	2998	(6) ₂ (N:C) ₂ (C:C) ₂	4.8	2609
	2.7	4640	(6) (O:N)	3.5	3575	(6) (O:C)	3.9	2745
(6 ₃) (6)	3.6	4715	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$	3.2	3604	(6) ₂ (O:C)	4.2	2890
(O:6 ₃ :O) (6)	3.5	4846	(O:6:O)	2.4	3998		4.4	2908
(6 ₃ 5)	3.9	4879	(7:O)	3.8	4039	(6) ₂ (O:C) (N:C) (C:C)	4.4	3130
	3.9	4882	(66) (6) (O:C)	3.4	4428	(6) (O:N)	3.1	3530
(6 ₃ 5) (O:C)	3.9	4890	(O:66:O)	3.4	4508	$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$		
$\begin{array}{c} \text{N} \\ \\ \text{O} \end{array}$			(75)	4.1	4529	(6) (O:N) ₂	3.3	3719
(6 ₄)	2.6	4903		4.1	4535			
	3.9	4949		4.1	4537	(O:6:O)	2.9	4001
	4.0	4989		3.7	4543	(7:O) (6)	4.0	4069
(6 ₄) (O:C)	3.0	5031		3.7	4548	(66) (O:C)	3.7	4270
$\begin{array}{c} \text{O} \\ \\ \text{O} \end{array}$			(6 ₃)	2.3	4634	(66) (6) (N:N)	3.5	4384
						(O:66:O)	3.4	4489
							3.4	4503
						(75)	3.8	4565
						(665:N)	2.6	4609
						(6 ₃)	2.6	4641

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	2.5	4642		2.4	4655		3.9	6013
	3.5	4663	(6 ₄)	3.9	4944	(N ₂ 65) (O:N) O	3.5	6656
(6 ₃ 5)	4.0	4881		3.9	4987			
	4.0	4883	(6 ₅)	4.2	5085	(N ₂ 6 ₃)	3.2	6798
	4.1	4888	(6 ₆)	4.3	5113	(N ₂ 6 ₃ :O)	3.8	6829
(6 ₃ 5:O)	3.7	4899	(6 ₇)	5.5	5159	(O5) ₂ (O:C) (C:C)	4.8	7452
(6 ₄)	3.9	4948	(6 ₈)	5.3	5171	(S5) ₂ (O:C) (C:C)	4.6	8004
	3.8	4951	(N6) ₂ (6) (C:C) ₂	4.7	5470	(S5) (O:C) ₂ O	3.5	8013
	3.9	4988	(N66)	3.8	5704			
(6 ₄) (O:C)	4.3	5026	(N66) (O:N) O	3.6	5816			
(6 ₄) (O:C) N	3.8	5030				$\lambda_{\max.}$: 355-355.5m μ		
(6 ₄) (O:C) O	4.5	5033	(N6 ₃)	3.8	5975	(C:C) ₄	4.1	189
(6 ₅)	3.9	5068		3.9	5990	(N:C) ₂ (C:C) ₂		544
(6 ₈)	3.9	5162	(N ₂ 66) (O:N) O	3.7	6699	(O:C) ₂ (C:C) ₂ O	4.1	1136
(N66)	3.6	5675	(N ₂ 66:O)	4.0	6734	(O:C) (N:C) (C:C) ₂ O	3.8	1187
	3.1	5753	(N ₃ 66:O)		7009			
(N ₂ 66) (6) ₂ (C:C) ₆	4.8	6714	(O5) (O:C) (C:C) ₃ O		7488	(6)	4.0	1501
(N ₂ 66:O)	4.1	6724				(6) (N:N)	4.3	2151
(N ₂ 66:O) (O:C) O	4.1	6742	(O66:O) (6)	4.3	7739	(6) ₂ (N:N)		2307
			(O:ON5:C) (6) ₂ (O:N) ₂ O				4.2	2311
(N ₂ 665)	3.8	6782		4.3	7887		4.2	2313
(N ₂ 6 ₃ 5)	4.7	6841	(S5) (O5) (O:C) (C:C)	4.4	8061		4.3	2315
(N ₄ 65)	4.3	7154					4.2	2316
(N ₅ 65)	4.4	7396	$\lambda_{\max.}$: 354-354.5m μ			(6) ₄ (N:N) ₃	3.9	2387
(O66:O) (6)	4.2	7734				(6) ₂ (N:N) O	4.4	2404
	4.3	7740						
(ON65) (6)	4.1	7919	(N:C)	4.4	356	(6) ₂ (N:C) ₂	4.4	2529
			(N:C) ₂	4.5	379	(6) (O:C) (C:C)	4.4	2953
			(O:C) ₂ (C:C)	1.8	906		4.4	2958
$\lambda_{\max.}$: 353-353.5m μ			(6) (O:C) (C:C)		2979		3.1	2968
				4.4	3005	(6) (O:C) (C:C) ₃	4.6	3026
(O:C) (C:C) ₄	4.3	854	(6) (O:N) O	3.8	3652	(6) ₂ (O:C) (N:N) O		3394
	4.7	857		3.9	3658			
(O:C) (N:C) (C:C) ₃ O	4.2	1188		3.8	3659	(6) (O:C) (O:C) (C:C)	3.6	3424
	4.1	1190	(6) (O:N) ₂ O	3.7	3697			
(6) (O:C)	4.5	2673				(6) (O:N) O	3.1	3558
	3.1	2802	(7:O) (6)	4.3	4071			
(6) (O:N) O	3.2	3537	(66) ₂ (N:C) ₂	4.5	4254	(6) ₂ (O:N) ₄ O	3.8	3760
			(66) (O:C) (C:C) O	3.8	4320			
(6) (O:N) (C:C) O		3773				(7:O) (6)	3.3	4067
		3774	(75)	3.7	4558		4.3	4072
(6) ₂ (S:C)	4.5	3909	(75) (O:C) O	3.9	4581		4.1	4077
(O:6:O)	4.4	3975					4.1	4078
(7:O)	3.7	4047	(6 ₃)	2.5	4656	(66) (6) (N:N)	4.1	4396
(75)	4.1	4539		3.0	4668	(N:66:N)	4.0	4450
	3.7	4540	(6 ₄)	3.9	4928	(O:66:O)	3.5	4491
	4.2	4557	(6 ₈)	4.6	5165	(75)	4.1	4553
	3.7	4567	(N6) ₂ (6) (C:C) ₂	4.7	5469	(6 ₃)	3.5	4667
	3.8	4570	(N66)	3.6	5684	(6 ₃) (6)		4713
(75) (6)	3.9	4591		3.4	5739	(6 ₄)	3.9	4992
(6 ₃)	3.1	4643	(N6 ₃)	3.8	6005		4.0	5009
	2.6	4651		3.8	6012	(N6) (6) ₃ (C:C) ₃	4.8	5466

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N66)	3.7	5687		3.8	5986	$\lambda_{\max.}: 358-358.5\mu$		
	3.9	5697		4.2	5988			
(N66) (6) (C:C) ₂	4.6	5834		4.3	5992	(O:C) (C:C)	4.7	654
(N6 ₃)	4.3	5968	(N ₂ 6:S)	3.4	6547	(O:C) (N:C)	4.4	963
	4.3	5969	(N ₂ 66:O)	4.0	6735	(6) ₂ (C:C) ₃	4.9	2111
	4.1	5970	(N ₂ 6 ₃ 5 ₂)	4.0	6852	(6) ₃ (N:C)	4.3	2564
	3.7	5971		4.1	6853	(6) ₃ (N:C:C)	3.1	2646
	3.8	5976	(N ₄ 5)	3.2	7022	(6) ₄ (O:C)	4.4	2936
	3.7	5977	(O6 ₃ :O)	3.6	7771	(6) (O:N)	3.2	3500
(N6 ₃ 5)	3.8	6047	(O6 ₃ :O) (6)	3.6	7777	0		
(N ₂ 6:S)	3.4	6550	(SN65) (6)	4.6	8282	(6) (O:N) ₂	4.2	3682
(N ₃ 6 ₃ 5)	4.3	7014		4.6	8283	0	4.2	3693
(O:N ₄ 66:O)	3.8	7330				(6) (O:N) ₃	4.2	3732
(O:N ₄ 6 ₃ :O)	4.1	7360				0	4.1	3735
(O6:O) (O:C)	4.3	7610	$\lambda_{\max.}: 357-357.5\mu$			(7:O)	3.8	4048
(O:ON5:C) (6) ₂ (O:N) ₂	4.3	7890	(C:C) ₇	2.8	241	(O:7:N)	3.6	4095
0			(C:C) (C:C) ₆	4.7	274	(66) (O:C)	3.7	4278
(S5) ₃	4.3	7979	(N:C)	4.3	340	(6 ₃)	2.8	4661
	4.4	7981	(O:C) (C:C)	4.8	655		3.1	4669
(S5) (O:C) ₂	3.7	8015	(O:C) (N:C)	4.2	964	(O:6 ₃ :O)	3.9	4829
0	3.7	8019	(O:C) ₂ (C:C) ₃	4.4	1139	(6 ₃ 5)	3.9	4875
(S5) ₂ (6) ₂ (N:C) ₂	4.1	8046	0			(6 ₄)	4.0	4945
(S5) (O5) (O:C) (C:C)	4.7	8062	(6) ₂ (O:C) (N:N)		3164		3.9	4950
(S65)	3.9	8106	N			(6 ₆)	5.2	5134
			(O:N)	1.7	1259	(N66)	3.7	5714
$\lambda_{\max.}: 356-356.5\mu$			(6)	4.0	1484	(N66) (6) (C:C) ₂	4.5	5833
				3.8	1538	(N6 ₃)	3.3	6006
(C:C) ₄	4.2	192	(6) ₂ (N:N)		2323		4.3	6007
(O:C) (C:C) ₄		856	(6) ₄ (N:C) ₂	4.4	2573		3.5	6010
(O:N)	1.9	1260	(6) (O:C)	3.5	2775	(O:N ₂ 6:O) (O:N)	4.2	6606
(6) ₄ (C:C) ₂	4.6	2127		3.7	2800	0		
(6) ₂ (N:N)	4.4	2259	(6) (O:N)	4.3	3459	(N ₂ 66:O)	4.0	6723
(6) ₃ (N:N) ₂	4.3	2368	(N:6:N:N)	4.5	3929		4.2	6732
(6) (O:C)	3.7	2799		4.7	3930	(N ₂ 665)	3.6	6779
(6) ₂ (O:C)	4.4	2873	(66) (6) (N:N)	3.7	4407	(N ₄ 65)	4.2	7156
(O:6:O)	2.7	3992	(N:66:N)	3.9	4451	(N ₄ 66:O)	3.8	7319
(7:O)	3.7	4040	(6 ₃)	3.9	4623	(O66:O) (6)		7703
(66) ₂ (C:C) ₂	4.9	4243		3.8	4664	(O:ON5:C) (6) ₂ (O:N) ₂		
(66) (6) (N:N)	4.5	4398	(6 ₄)	2.7	4914	0	4.4	7888
(75) (O:C)	3.6	4576		2.5	4916			
0				3.9	4955			
(6 ₃)	3.9	4624	(6 ₄) (6) ₂	4.1	5046	$\lambda_{\max.}: 359-359.5\mu$		
(O:6 ₃ :O)	3.5	4815	(N6 ₃)	3.7	5964			
(6 ₄)	2.5	4915		4.3	6025	(N:C)	4.3	357
	2.6	4917	(N ₂ 66)	3.7	6721	(O:C) (C:C) ₅	4.6	1099
	4.0	4946	(N ₂ 665)	3.6	6787	0		
	3.9	5006	(N ₄ 5)	4.1	7023	(6) ₂ (N:N)	4.3	2236
(6 ₄) (N:C)	3.9	5021	(O:N ₄ 66:O)	4.0	7336		4.2	2266
(6 ₅)	4.5	5078	(O5) (O:C) (C:C) ₃		7489		4.0	2283
	4.2	5086	0			(6) ₃ (N:N) ₂	4.6	2369
(N6:C) (6) ₂	4.1	5498	(SN6 ₃ :O)	4.0	8374	(6) (O:C)	3.7	2724
(N6 ₃)	4.0	5966	(O:SN ₂ 665:C) (6)	4.2	8394	(7:O) (6)	4.1	4065
	4.3	5984				(66) (O:N)	3.6	4328

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6 ₃)	3.9	4629		2.9	4937	(6 ₃) (O:C) O	2.9	4704
(6 ₃ ⁵ :N)	3.9	4894		4.0	4957			
(6 ₄)	2.6	4918		3.9	4960	(6 ₃ ⁵)	3.8	4889
	3.7	4956		3.8	4961	(6 ₄)	2.4	4908
	4.0	4998		3.9	4993		4.0	4995
(N6:C) (6) ₂	4.5	5499	(O:6 ₆ :O)	3.7	5137	(6 ₄) (N:C:O)	4.0	5043
(N6 ₃)	4.3	5980	(N5) (O:C) ₂ O	3.5	5217	(O6 ₄)	4.1	7785
(N6 ₄)	3.3	6052				(O:ON5:C) (6) ₂	4.6	7805
(N ₂ 665)	3.7	6775	(N66)	3.3	5733		4.6	7817
(N ₄ 65)	4.2	7158		3.5	5736	(O:ON5:C) (6) ₂ (O:N) ₂ O	4.5	7894
(O:ON5:C) (6) ₂ (O:N) O	4.5	7852		3.1	5738			
				3.3	5741			
(O:ON5:C) (6) ₂ (O:N) ₂ O	4.4	7891	(N665) (O:N) ₂ O	3.3	5744			
(ON65) (O:N) O	4.3	7907		4.3	5957	λ _{max.} : 362-362.5μ		
(S5) ₃	4.4	7982	(N6 ₃)	3.3	5979	(N:N)	1.0	304
				3.8	5981	(N:C)	4.3	348
				3.5	5982	(6) ₂ (N:N)	4.4	2178
				3.2	5991		4.1	2183
				3.8	5994		4.5	2196
				4.2	6002		4.3	2264
				3.9	6008		4.3	2265
λ _{max.} : 360-360.5μ				3.7	6011	(6) ₃ (N:N)	4.1	2353
(C:C) ₆		203		3.6	6016	(6) ₂ (N:C) ₂	4.1	2548
(O:C) (N:C)	4.4	961		3.7	6017	(6) (O:C)	4.4	2762
(6) ₂ (N:N)	4.4	2241	(N6 ₃) (6)	4.0	6033		4.2	2835
	3.6	2243		4.3	6034	(6) (O:N)	4.0	3469
	3.9	2281		4.3	6035		4.1	3473
(6) ₃ (N:N)	4.1	2362	(N ₂ 66:O) (O:N) O	3.8	6752		4.0	3477
(6) ₄ (N:N) ₂	4.5	2379				(6) (O:N) ₂ O	3.4	3718
(6) ₃ (N:N) (N:N) O	4.5	2406	(N ₂ 6 ₃)	4.0	6817			
(6) ₂ (N:C)	4.4	2507	(N ₄ 66:O) (O:C) O	4.2	7321	(O:6:O)	2.5	3994
(6) ₃ (N:C)	4.7	2563					2.9	4000
(6) (O:C)	3.9	2782	(O66:O) (6)	4.4	7726	(O:6:C) (6) ₂	4.5	4010
(6) (O:C) (C:C)	4.5	2992		4.6	7730	(66)	3.0	4131
(6) (O:C) (C:C) ₃	4.7	3024		4.3	7735	(66) ₂ (C:C) ₂	4.3	4241
(6) (O:C) (O:C) (C:C) O	1.9	3413		4.3	7738	(75)	4.0	4544
(6) (O:N)	3.8	3654	(O:ON5:C) (6) ₂	4.6	7803		3.7	4564
	3.9	3655	(O:ON5:C) (6) ₂ (O:N) O	4.4	7850		3.7	4566
(6) ₂ (O:N) O	4.3	3749				(75) (O:C) O	3.8	4580
(6) ₂ (O:N) ₂ O	4.1	3759	(SN5:O) (6) ₂ (C:C)	4.3	8227			
						(6 ₃) (O:C) (O:C) C1	3.0	4707
(O:6:O)	2.9	3980	λ _{max.} : 361-361.5μ			(6 ₃) (6)	3.5	4714
(7:O) (6) (C:C)	4.2	4084				(O:6 ₃ :O)	3.1	4730
(66)	4.3	4100	(N:C)	4.3	341		3.4	4814
(75)	4.0	4546	(O:C) (N:C)	4.4	965	(6 ₃ ⁵)	3.9	4877
	3.6	4560	(O:N)	2.1	1253		3.9	4880
(6 ₃)	2.5	4662	(6)	4.0	1502	(6 ₃ ⁵) (O:C) N	3.9	4890
	3.9	4694	(6) ₂ (N:N)	3.8	2282			
(6 ₃) (O:C)	3.7	4701	(6) (O:C)	3.9	2826	(6 ₄)	2.9	4907
(6 ₃ ⁵)	3.9	4885	(7:O)	3.9	4053		2.9	4909
(6 ₃ ⁵ :N)	3.5	4895	(6 ₃)	3.8	4670		3.0	4912
(6 ₄)	3.0	4902	(6 ₃) ₄ (C:C)	4.6	4697		2.5	4913

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	4.2	4964	(S:N ₂ 6:S)	3.9	6628	λ _{max.} : 365-365.5μ		
	3.8	4991	(N ₂ 6 ₄)	3.7	6846			
	3.9	5000	(O:ON5:C) (6) ₂	4.6	7833	(N:C) (C:C)	4.4	457
	3.8	5008	(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7865	(N:C) (C:C) ₂	4.5	555
(6 ₄) (O:C) ₀	3.9	5036				(O:C) ₂	1.3	623
	3.9	5037	(S5) (O:ON5:C)	4.4	8064	(O:C) (N:C)	4.3	960
(N6 ₃)	3.2	6003	(S665) (O:N) ₀	3.7	8150	(O:C) (N:C) ₀	4.4	1159
(O:N ₂ 5:C) (6)	4.5	6100				(6) ₂ (C:C) ₄	4.5	2140
	4.5	6101	λ _{max.} : 364-364.5μ			(6) ₂ (N:N)	4.0	2300
(S:N ₂ 6:S)	4.0	6625					3.9	2302
	3.9	6626				(6) ₃ (N:N) ₂	4.7	2377
(N ₂ 66) (O:N) ₀	3.9	6697	(C:C) ₄ (C:C) ₂	4.1	290	(6) ₂ (N:C)	4.3	2508
	4.0	6701	(O:C) (N:C) ₀	4.4	1158	(6) ₂ (O:C) ₂	3.3	2921
(N ₂ 66:O) (O:N) ₀	3.8	6746	(6) ₂ (N:N)	4.5	2237	(6) ₂ (O:C) (C:C)	3.2	3058
				4.3	2238	(6) (O:C) (N:N) (C:C)	4.3	3129
(N ₂ 6 ₃)	3.5	6808	(6) ₄ (N:N) ₂	4.7	2381	(6) (O:N) ₂	4.3	3681
	3.5	6809	(6) ₄ (N:C) (N:N)	4.6	2615			
(N ₃ 65) (O:N) ₀	3.9	6982	(O:6:O)	2.7	3991	(6) ₂ (O:N) ₃ (C:C) ₀	4.0	3811
			(7:O)	4.3	4044			
(N ₄ 66)	3.9	7307	(66) ₂ (C:C) ₂	4.6	4242	(7:O) ₂	4.3	4062
(N ₄ 66:O) (O:C) ₀	4.2	7322	(66) ₂ (N:N) ₀	4.1	4247	(66) (O:C)	3.7	4275
						(6 ₃)	3.1	4686
(O5) (6) ₄	4.8	7542	(66) (O:C) ₀	4.0	4306	(6 ₃) (O:C) ₀	3.2	4705
λ _{max.} : 363-363.5μ			(6 ₃)	3.9	4646	(6655:O)	3.9	4873
			(6 ₃) (N:C)	3.9	4698		3.9	4874
(N:C)	4.4	351	(6 ₃) (6)	4.1	4711	(6 ₄)	3.9	4967
	4.4	353	(6 ₃ 5)	3.9	4876	(6 ₄ 5)	3.9	5059
(N:C) (C:C)	4.4	553		4.0	4878	(6 ₅)	4.2	5089
(6) ₃ (N:N) ₂	4.6	2372	(6 ₄)	4.9	4947	(6 ₈)	3.9	5162
(6) ₄ (N:N) ₂	4.5	2380		4.0	5010	(N66)	3.2	5730
(6) (N:C)	4.3	2472	(6 ₄) (C:C)	4.6	5013	(N665) (O:N) ₀	4.0	5953
(6) (O:C)	3.5	2803	(6 ₉)	5.0	5186			
(6) (O:N) (C:C) ₀	4.2	3783	(N66)	3.3	5745	(N6 ₃)	4.7	5989
			(N6 ₄)	4.0	6055		3.7	6024
(N:6:N)	4.6	3918	(N ₂ 66)	4.1	6667	(N6 ₃ 5)	3.6	6048
(6 ₃) (O:N) ₀	3.6	4708		4.2	6674			
			(N ₂ 66) (O:N) ₀	4.0	6696	(S:N ₂ 5:O) ₀	4.5	6124
(6 ₃) (6)		4713						
(O:6 ₃ :O)	3.6	4794	(N ₂ 66:O) (O:N) ₀	4.1	6743	(S:N ₂ 6:S)	3.8	6629
(6 ₃ 5)	4.1	4887				(N ₂ 66) (6) (C:C)	4.4	6709
	4.1	4888	(O6 ₃ :O)	3.6	7773	(N ₂ 66) (6) ₂ (C:C) ₄	4.8	6713
(6 ₄) (C:C)	2.9	5012	(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7847	(N ₂ 6 ₃) (O:C) _N		6823
(6 ₄) (O:C)	4.4	5022				(N ₂ 6 ₃) (O:C) ₀		6824
(6 ₄) (O:C) ₀	3.9	5038	(O:ON5:C) (6) ₂ (O:N) ₀	4.4	7893			6825
(6 ₄ 5)	3.7	5061	(S6) (6) ₂		8074	(N ₄ 66:O)		7320
(N6 ₃)	3.8	5993	(SN65:C) (6) (O:C) (N:C)			(O:N ₄ 66:O) (6)		7342
(O:N ₂ 5:C) (6)	4.4	6103		4.0	8304	(O:N ₄ 6 ₃ :O)	4.3	7359
	4.4	6104				(O:ON5:C) (6) ₂	4.6	7806
	4.4	6105					4.6	7819
							4.6	7837
(O:N ₂ 5:C) (6)	4.4	6113				(O:ON5:C) (6) ₂ (O:N) ₀	4.4	7846

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
$\lambda_{\max.}: 366-366.5\mu$			$(6_4)(O:\overset{\underset{O}{ }}{N})$	3.9	5040			7716
(N:C)	4.4	349	(6_5)	4.0	5077	$(O:ON5:C)(6)_2(O:\overset{\underset{O}{ }}{N})$	4.8	7728
	4.4	354	(6_6)	4.9	5111		4.5	7864
(N:C)(C:C)	4.4	394	$(N6_4)$	3.7	6056			7866
(N:C)(C:C) ₄	4.9	525	$(N_266:O)$	4.0	6740	$\lambda_{\max.}: 369-369.5\mu$		
(O:N)	2.0	1252	$(O:N_466:O)(O:\overset{\underset{O}{ }}{C})$	4.2	7339	(N:C)(C:C) ₄	5.0	524
$(6)_2(N:N)$	4.4	2244	$(O:ON5:C)(6)_2$	4.6	7821	$(O:C)(C:C)_5$	4.7	866
	4.1	2267		4.6	7822	$(6)_2(N:N)$	4.4	2258
	4.1	2269		4.6	7834	$(6)_4(N:N)_2$	4.7	2382
$(6)_3(N:N)_2$	4.2	2367	$\lambda_{\max.}: 368-368.5\mu$			$(O:66:O)$	3.8	4506
$(6)(O:\overset{\underset{O}{ }}{N})_3$	4.2	3733	(6)	4.1	1503	(75)	3.9	4565
$(6)_2(O:\overset{\underset{O}{ }}{N})$	4.3	3748	$(6)_2(C:C)_5$	4.4	2141	$(75)(O:\overset{\underset{O}{ }}{C})$	3.9	4581
$(66)(O:C)$	3.7	4274	$(6)_2(N:N)$	4.5	2239	(6_3)	3.9	4672
	3.8	4276		4.4	2247	(6_4)	2.9	4958
$(66)(O:\overset{\underset{O}{ }}{C})$	3.4	4307		4.3	2268	(6_45)	3.9	5062
(75)	4.0	4531		3.7	2270	(6_5)	3.9	5084
(6_3)	3.9	4630		4.3	2271	$(N6_3)$	3.8	5978
	3.8	4671		4.7	2306	$(N_266:O)$	4.1	6724
$(6_3)(6)$	3.3	4712	$(6)_3(N:N)_2$	4.6	2370		4.1	6739
	3.0	4718		4.5	2373	$(O:SN_2655:C)(6)$	4.3	8395
(6_35)	3.9	4879	$(6)(N:C)$	4.3	2470	$\lambda_{\max.}: 370-370.5\mu$		
	4.0	4882		4.3	2471	(C:C) ₆	4.9	205
(6_4)	2.8	4910	$(6)(O:\overset{\underset{O}{ }}{N})$	3.2	3549	(N:C)	4.4	355
$(6_4)(N:C)$	3.9	5019	$(6)_3(O:\overset{\underset{O}{ }}{N})_2(N:N)_2$	3.6	3617	$(O:C)(C:C)_5$	4.8	863
(6_5)	2.9	5074		4.6	3846	$(O:C)(N:C)$	4.3	959
$(6_5)(N:C:O)$	4.2	5095	$(N:6:N:N)$	4.4	3931	$(6)_4(C:C:C:C:C:C)$	4.4	2145
$(N6_45)$	4.4	6066	$(O:6:O)$	4.4	3974	$(6)_2(N:N)$	4.4	2176
$(N_26:S)$	3.2	6541	$(7:O)$	3.8	4052	$(6)(O:C)$	4.4	2675
(N_2665)	3.8	6777	$(66)(O:\overset{\underset{O}{ }}{C})$	3.4	4303	$(6)(O:C)_2$	4.4	2838
$(O5)(O:C)(C:C)_3$	4.4	7448	$(O:66:O)$	3.6	4505	$(6)_2(O:C)$	4.3	2874
$(O:ON5:C)(6)_2$	4.5	7812	(75)	4.0	4542		4.3	2875
$(O:ON5:C)(6)_2(O:\overset{\underset{O}{ }}{N})$	4.5	7859	$(75)(6)$	3.9	4591	$(6)_2(O:C)_2$	1.9	2911
$\lambda_{\max.}: 367-367.5\mu$			(6_3)	3.8	4647	$(6)_2(O:C)(C:C)$		3075
(N:C)	4.4	352		3.9	4659	$(6)_2(O:C)(C:C)_2$	4.2	3101
(N:C)(C:C)	4.4	395	$(O:6_3:O)$	3.6	4791	$(6)_2(O:C)(C:C)_3$	4.7	3104
	4.3	456	(6_35)	4.0	4881	$(6)(O:\overset{\underset{O}{ }}{C})(C:C)$	4.3	3352
$(6)_2(N:C)$	3.8	2521	(6_4)	4.0	4983			
$(6)_2(N:C)_2$	4.6	2536		3.9	4992	$(6)(O:\overset{\underset{O}{ }}{N})$	4.1	3561
$(6)(O:\overset{\underset{O}{ }}{N})_3$	4.1	3728	$(6_4)(N:C)$	3.8	5020			3565
			$(6_4)(O:\overset{\underset{O}{ }}{C})$	2.9	5032		3.7	3609
$(O:66:O)$	2.6	4507				$(7:O)(6)$	4.1	4070
$(O:6_3:O)$	3.6	4756	(6_6)	3.1	5112	$(66)(O:C)$	3.7	4263
(6_35)	4.0	4883		4.5	5117	$(66)(O:N)$	4.0	4339
(6_4)	2.9	4911	$(S:N_25:O)$	4.5	6128	$(66)(6)(N:N)$	4.1	4377
	2.7	4954	(N_2665)	3.7	6772	$(O:66:O)$	3.8	4471
	3.9	4994	$(O66:O)(6)$		7712	(75)	4.3	4533
						(6_3)	3.9	4674

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6 ₄)	3.7	4971		4.3	2297	(6 ₄)	2.3	4915
(6 ₅)	4.3	5082		4.2	2298		3.5	4975
	4.2	5085	(6) ₃ (N:N) ₂	4.7	2375		3.5	4985
(N66)	3.1	5729	(6)(N:C)	4.5	2477	(6 ₄ 5)(N:C) ₂	4.0	5063
(N66)(6)(C:C) ₂	4.3	5835	(O:6:O)	2.4	3993	(6 ₅)	4.4	5081
(N665)	4.2	5954	(7:O)	4.0	4049		4.4	5091
(N6 ₃)	4.1	6009	(66)(O:C)	3.6	4283	(N665)	4.2	5931
(N6 ₃)(6)	4.9	6032	(66)(O:N)	4.2	4327	(N6 ₃)	3.6	5965
				4.0	4329	(S:N ₂ 5: ^O C)(6)	4.4	6125
(S:N ₂ 5: ^O C)(6)	4.5	6126	(66)(6)(N:N)	4.1	4376			
(N6)(6)(C:C) ₃	4.7	6387	(6 ₃)(6)	3.1	4716	(N ₂ 6 ₃)	3.2	6798
(N ₂ 6:O)	2.6	6453		4.0	4721	(O5)(O:C)(C:C) ₃		7447
(N ₂ 66:O)(O:N)	4.1	6748	(6 ₃ 5)	4.0	4886	(O:ON5:C)(6) ₂ (O:N)	4.3	7856
			(6 ₃ 5:O)	3.5	4896			
(N ₂ 6 ₃)	3.2	6799	(6 ₄)(O:C)	4.4	5022	(O:ON5:C)(6) ₂ (O:N) ₂	4.5	7889
(N ₂ 6 ₄)	4.0	6843	(6 ₅)	3.8	5076		4.5	7892
(N ₄ 66)		7309		4.4	5088	(SeSN ₂ 6655)	4.2	8442
(N ₄ 66:O)(O:C)	4.2	7324	(O:N65:C)	3.8	5610			
			(N66)	3.6	5676			
(O:ON5:C)(6) ₂	4.5	7836	(N665)	4.3	5929	$\lambda_{\max.}$: 374-374.5μ		
	4.6	7838	(N6 ₃)	3.9	5985			
(O:S65:C)(S65)	4.4	8120	(N ₂ 6:O)	2.4	6452	(C:C) ₂ (C:C) ₆	4.8	285
			(N ₂ 66)	3.4	6670	(6) ₂ (C:C) ₄	5.2	2115
$\lambda_{\max.}$: 371-371.5μ			(N ₂ 6 ₃ 5)	3.6	6834	(6) ₂ (N:N)	4.4	2251
			(N ₂ 6 ₄)	3.8	6847		4.4	2252
(6) ₂ (N:N)	4.3	2260	(N ₄ 66:O)(O:C)	4.3	7325	(6)(O:C)(C:C)	4.5	2949
	4.3	2261				(6)(O:N)	4.2	3502
	4.3	2301	(O:ON5:C)(6) ₂	4.5	7829			
(6) ₃ (N:N) ₂	4.7	2378	(S ₂ N ₂ 6655)	4.2	8402	(O:6:C)(6) ₂ (O:C)	3.8	4021
(6)(O:N)	4.2	3501						
			$\lambda_{\max.}$: 373-373.5μ			(7:O)(6)(C:C)	4.4	4083
(N:6:N:N)	4.7	3932				(75)(O:C)	3.6	4576
(65:C)(6)(C:C)	4.8	4097	(N:C)(C:C)	4.5	400			
(66)(O:N)	3.6	4337	(O:C)(N:C)	4.3	958	(6 ₃)	3.9	4624
(O:66:N:N)	4.5	4527	(6) ₂ (N:N)	4.3	2263		3.9	4679
(75)	3.9	4570	(6)(N:C)	4.4	2478	(O:6 ₃ :O)	3.7	4807
(6 ₃)	4.0	4673	(6)(N:C)(C:C)	4.3	2593	(6 ₄)	2.2	4916
(6 ₃)(O:C)	3.8	4699	(6) ₃ (N:C) ₂ (C:C) ₂	4.7	2613		2.4	4917
(6 ₄)	3.8	4987	(6) ₂ (O:C)(C:C) ₃	4.7	3105		2.8	4936
(6 ₇)	3.2	5143	(6)(O:N)	3.2	3498	(6 ₆)	4.3	5110
		5144		3.2	3536	(N6 ₄)	3.4	6051
	3.9	5146		4.1	3545	(O:O65:C)(6)	4.2	7639
(O66:O)(6)	4.2	7724		3.2	3557	(O66:O)(6)	4.4	7731
(O:ON5:C)(6)(O:N)	4.4	7869		3.5	3613	(S:SN5: ^O C)(6)	4.5	8236
	4.5	7871	(6) ₂ (O:N)(N:N)	4.1	3828	(SeSN ₂ 6655)	4.3	844

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$(\text{O}:\underset{\text{O}}{\text{C}})_2(\text{N}:\text{C})(\text{C}:\text{C})$	4.2	1173	(66)(\text{O}:\text{N})	3.3	4338	$\lambda_{\text{max.}}: 378-378.5\mu$		
$(\text{O}:\text{C}:\text{C})$	1.3	1240		5.0	4341	$(\text{O}:\text{C})(\text{C}:\text{C})_2$	4.7	819
$(6)_2(\text{C}:\text{C})_4$	5.0	2112	(65)	2.8	5066	$(6)_2(\text{N}:\text{N})$	4.5	2249
	5.0	2113	(66)	3.0	5069		4.4	2254
$(6)_2(\text{N}:\text{N})$		2208	(N65)	3.8	5131		4.4	2255
$(6)_2(\text{N}:\text{C})$	4.5	2526	(N266:\text{O})(\text{O}:\underset{\text{O}}{\text{N}})	4.0	6067	$(6)(\text{O}:\text{C})$	3.6	2779
$(6)_2(\text{O}:\text{C})(\text{C}:\text{C})_4$	4.6	3107		4.2	6747	$(6)(\text{O}:\text{C})(\text{C}:\text{C})_4$	4.8	3029
$(6)(\text{O}:\underset{\text{O}}{\text{N}})$	3.2	3499	$(\text{O}:\text{N}_46_3:\text{O})$	3.2	7358	$(6)(\text{O}:\underset{\text{O}}{\text{N}})$	2.9	3512
	3.1	3548	$(\text{O}:\text{ON}5:\text{C})(6)_2$	4.6	7843		4.1	3546
$(6)(\text{O}:\underset{\text{O}}{\text{N}})_2$	4.1	3686	$(\text{O}:\text{ON}5:\text{C})(6)_2(\text{O}:\underset{\text{O}}{\text{N}})$	4.6	7854	$(6)(\text{O}:\underset{\text{O}}{\text{N}})_2$	4.0	3699
$(6)_2(\text{O}:\underset{\text{O}}{\text{N}})_2(\text{N}:\text{C})_2$	3.5	3856	(S5)(\text{O}:\underset{\text{O}}{\text{N}})_2	4.0	8027	$(\text{O}:\text{6}:\text{O})$	2.4	4005
$(\text{O}:\text{6}:\text{O})$	3.2	3948	(SN5) $_2(6)_4$	4.3	8194	$(7:\text{O})(6)$	4.0	4075
	3.2	3949				$(66)(6)(\text{N}:\underset{\text{O}}{\text{N}})$	4.1	4415
	2.8	4003	$\lambda_{\text{max.}}: 377-377.5\mu$			$(665:\text{O})$	2.4	4610
$(7:\text{O})$	3.7	4048					2.4	4611
$(66)(\text{O}:\text{C})$	3.7	4281	$(\text{N}:\text{C})(\text{C}:\text{C})$	4.4	425	(6_3)	4.0	4648
$(66)(6)_2(\text{O}:\underset{\text{O}}{\text{C}})$	3.5	4445		4.4	444	$(\text{O}:\text{6}_3:\text{O})$	3.7	4793
				4.4	446	(6_4)	3.0	4941
(6_3)	3.9	4623		4.4	448		3.2	4942
	3.8	4665	$(\text{O}:\text{C})(\text{C}:\text{C})_2$	4.5	779		3.5	4981
$(\text{O}:\text{6}_3:\text{O})$	3.8	4763	$(\text{O}:\text{C})(\text{C}:\text{C})_5$	4.7	860	$(6_4)(\text{C}:\text{C})$	3.0	5014
(6_4)	2.7	4914	$(\text{O}:\text{C})(\text{N}:\text{N}:\text{C})$	1.2	1191	$(6_4)(\text{N}:\text{C})$	4.0	5017
$(6_4)(\text{N}:\text{C})$	3.9	5016	$(6)_2(\text{N}:\text{N})$	4.4	2175	$(6_4)(6)$	3.9	5045
(6_5)	2.6	5070	$(6)(\text{N}:\text{C})$	4.5	2430	(66)	4.3	5114
(6_6)	4.7	5116		4.5	2431	$(\text{N}65)(\text{O}:\text{6}:\text{O})$	3.7	5584
$(\text{N}66)(6)(\text{C}:\text{C})$	4.5	5830		4.4	2455	$(\text{N}_26:\text{S})$	3.2	6535
$(\text{N}_275)(6)$	4.4	6763	$(6)_2(\text{N}:\text{C})_2(\text{C}:\text{C})_3$	4.9	2611	(N_466)	2.1	7314
(N_26_3)	3.9	6814	$(6)(\text{O}:\text{C})$	3.6	2717	$(\text{O}:\text{N}_466:\text{O})(\text{O}:\underset{\text{O}}{\text{C}})$	4.4	7340
$(\text{N}_365)(\text{O}:\underset{\text{O}}{\text{N}})$	3.6	6992	$(6)(\text{O}:\underset{\text{O}}{\text{N}})_3$	4.2	3729			
$(\text{O}5)(\text{O}:\underset{\text{O}}{\text{N}})(\text{N}:\text{C})$	4.2	7498	$(\text{O}:\text{6}:\text{O})$	4.4	3977	$(\text{O}5)_2(\text{N}:\text{C})_2(\text{C}:\text{C})_2$	4.8	7431
	4.1	7501		4.4	3978	$(\text{O}:\text{ON}5:\text{C})(6)_2(\text{O}:\underset{\text{O}}{\text{N}})$	4.5	7881
$(\text{O}66:\text{O})(6)$	3.3	7736	$(66)(6)(\text{N}:\text{N})$	3.4	4385			
$(\text{O}6_5)$	4.1	7787	(6_3)	3.9	4629	$(\text{O}:\text{S}65:\text{C})(\text{S}65)$	4.5	8126
$(\text{S}5)(\text{O}:\underset{\text{O}}{\text{C}})_2$	3.5	8011		3.7	4664			
$(\text{S}6)(6)_3$		8076		4.0	4676	$\lambda_{\text{max.}}: 379-379.5\mu$		
$\lambda_{\text{max.}}: 376-376.5\mu$			$(6_3)(\text{C}:\text{C})$	4.0	4696	$(\text{C}:\text{C})_6$		204
$(\text{N}:\text{C})(\text{C}:\text{C})$	4.5	414	$(6_3)_4(\text{C}:\text{C})$	4.6	4697	$(\text{N}:\text{C})(\text{C}:\text{C})$	4.4	435
$(6)_2(\text{N}:\text{N})$	4.3	2180	$(\text{O}:\text{6}_3:\text{O})$	2.1	4733	$(6)(\text{N}:\text{C})$	4.3	2469
	4.0	2242	(6_4)	2.4	4918	$(6)_2(\text{N}:\text{C})$	4.4	2510
	4.4	2246	(6_7)	4.6	5147	$(6)(\text{O}:\text{C})$	3.7	2658
	4.4	2253	(N66)	3.6	5710	$(6)(\text{O}:\underset{\text{O}}{\text{N}})$	4.2	3533
$(6)(\text{N}:\text{C})$	4.4	2473	$(\text{N}66)(6)(\text{C}:\text{C})_3$	4.7	5837	$(6)_2(\text{O}:\underset{\text{O}}{\text{N}})$	4.2	3741
$(6)_2(\text{O}:\text{C})(\text{C}:\text{C})_3$	4.5	3103	(N665)	4.3	5930			
$(6)(\text{O}:\underset{\text{O}}{\text{N}})(\text{C}:\text{C})$	4.2	3779	$(\text{N}_266)(6)$	4.0	6707	$(66)(\text{O}:\text{N})$	4.0	4330
						$(66)(6)(\text{N}:\text{N})$	3.6	4413
$(\text{N}:\text{6}:\text{N}:\text{N})$	4.6	3934				(75)	4.1	4561
						$(75)(6)$	4.0	4594

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(6 ₄)	4.2	5001	λ _{max.} : 381-381.5μ			(O:N ₂ 5:C) (6)	4.2	6102
(N665) (O:N) ₂ O	4.0	5956	(N:C) (C:C)	4.5	406	(N ₄ 65)	3.3	7132
(N ₂ 66:O)	4.2	6733		4.4	458	(O:N ₄ 66:O) (O:C) O	4.4	7338
(N ₄ 66:O) (O:C) O	4.2	7328	(6) ₂ (N:N)	4.0	2240	(O:ON5:C) (6) ₂ (O:N) O	4.4	7879
(O:O65:C) (6)	4.1	7635	(6) (N:C)	4.5	2448			
(O:O665:O)	3.4	7762		4.6	2466	λ _{max.} : 383-383.5μ		
(O:ON5:C) (6) ₂ (O:N) O	4.5	7867	(6) (O:C)	3.6	2742	(O:C) (C:C) ₅		867
			(6) (O:N) O	4.1	3503	(6) (N:C)	4.4	2475
λ _{max.} : 380-380.5μ			(7:O)	3.7	4054	(66) (O:N)	5.1	4342
(N:C) (C:C)	4.5	408	(66) ₂ (N:N)	4.2	4245	(66) (6) (N:N)	4.2	4394
(O:C) ₂	1.0	628	(66) (O:C)	3.7	4261	(6 ₃) (O:C) (C:C)	3.9	4703
(O:C) (C:C) ₅	4.8	861		3.7	4282	(6 ₃) (O:N) O	3.6	4708
	4.9	862	(6 ₃)	3.8	4670			
	4.6	864	(765)	3.7	4863	(6 ₄)	3.1	4940
(O:N)	2.0	1258	(O:ON5:C) (6) ₂ (O:N) O	4.6	7848		3.5	4959
(6) ₂ (N:N)	4.4	2245	λ _{max.} : 382-382.5μ				3.5	4962
(6) ₃ (N:N)	4.2	2359	(C:C) ₁₂	4.4	221		3.9	4970
(6) ₄ (N:N) ₃	4.8	2386	(N:C) (C:C)	4.4	407	(6 ₄ 5)	4.0	5059
(6) (N:C)	4.4	2456		4.4	427	(6 ₅) (O:C:N)	4.4	5096
(6) (N:C) (C:C)	4.8	2582	(6) ₂ (N:N)	4.3	2248	(N66:S)	4.1	5915
	4.4	2583	(6) (N:C)	4.4	2464	(O:ON5:C) (6) ₂	4.6	7814
(6) ₃ (N:C) ₂ (C:C) ₄	4.8	2614		4.1	2525		4.6	7815
(6) ₂ (O:C) ₂	2.1	2922	(6) ₂ (N:C) ₂	4.0	2558	(O:ON5:C) (6) ₂ (O:N) O	4.6	7895
(6) (O:N) O	4.1	3534	(6) (N:C) (C:C)	4.7	2595			
(7:O)	3.8	4051	(6) (O:C)	3.8	2752	λ _{max.} : 384-384.5μ		
	3.7	4052	(6) (O:C) (C:C) ₃	4.3	3027	(N:C) (C:C)	4.4	428
(7:O) (6)	3.9	4079	(6) (O:C) (C:C) ₄	3.8	3030		4.4	445
(75) (O:C) ₂ O	3.8	4587	(N:6:N:N)	4.6	3935	(O:C) ₂	1.3	631
			(7:O)	3.7	4049	(6) ₂ (C:C) ₄	4.9	2114
(6 ₃)	4.0	4680	(75) (O:C)	3.8	4574	(6) (N:C)	4.5	2476
	4.0	4681	(75) (O:C) O	3.7	4580	(6) ₂ (O:C)	4.5	2910
(6 ₄) (N:C)	3.9	5018	(75) (O:N) O	4.0	4588	(6) ₂ (O:C) (C:C)		3080
(6 ₄) (N:C:O)	4.0	5043						3081
(6 ₄ 5)	4.1	5060	(665:O) (O:C) O	2.4	4618	(O:66:O) (O:C) O	3.7	4520
(6 ₇)	5.5	5161	(6 ₃)	3.9	4646	(6 ₃) (6)	4.0	4711
(N66)	3.5	5685		3.9	4683	(6 ₃) (6) ₂	4.2	4722
(N ₂ 6)	2.4	6195		3.9	4684		4.0	4723
(N ₄ 66:O) (O:C) O	4.2	7323	(6 ₃) (C:C)	3.9	4694	(6 ₄)	2.9	4905
			(6 ₃) (N:C)	3.9	4698		3.4	4978
(O:N ₄ 66:O) (O:C) O	4.3	7341	(6 ₄)	4.0	4984	(6 ₅)	4.4	5073
(O5) (O:N) (N:C) O	4.2	7499	(6 ₄) (N:C)	4.0	5015		4.4	5089
(O:O5:C) (6) ₂	4.5	7555	(6 ₄ 5) (O:C) N	4.1	5064	(N6:C) (6)	3.9	5497
	4.6	7830	(6 ₇)	4.1	5140	(N6 ₃)	3.7	6013
(ON ₂ 65:O) (6)	4.1	7947	(N65) (O:66:O) ₂	4.0	5593	(N6 ₄)	4.0	6055
(S6:O)	1.0	8101	(N66)	3.5	5721	(N ₂ 665)	3.9	6776
(Se665) (O:N) O	3.7	8416	(N6 ₃ :O)	3.9	6045	(O66:S) (O:C) O	4.2	7746

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.}$: 385-385.5 μ			(66)	3.7	4116	(N ₄ 66:O) (O:C) O	4.3	7326
(N:C) (C:C)	4.4	449	(66) ₂ (N:N) O	4.2	4248	(O:ON5:C) (6) ₂ (O:N) O	4.4	7862
(N:C) (C:C) ₂	4.4	504	(66) (O:C)	3.2	4280	(S5) (O:C) ₂ O	4.0	8012
(N:C) ₂ (C:C) ₆	4.9	547	(6 ₃)	3.9	4630	(S5) (O:ON5:C) (6)	4.2	8072
(6) ₂ (N:N)	4.3	2292		3.8	4647			
	4.3	2295		3.7	4671			
(6) ₂ (N:C) (C:C)	4.0	2606	(6 ₄)	3.1	4929			
(6) ₂ (N:C) ₂ (C:C) ₄	4.9	2612		3.1	4932			
(6) ₂ (O:C) (C:C)	4.5	3064		3.1	4948			
(6) (O:N) O	3.0	3511		3.2	4952	$\lambda_{\max.}$: 388-388.5 μ		
(6) ₂ (O:N) (N:N) O	4.5	3822	(6 ₄) (O:C)	4.0	4976	(N:C) (C:C) ₂	4.4	478
(N:6:N)	4.2	3920		4.0	5024		4.4	505
(O:6:O)	2.8	4002	(O:6 ₄ :O)	4.0	5028	(O:C) (C:C) ₃	4.1	851
(66) ₂ (N:C) ₂	4.3	4259	(6 ₆)	3.8	5054	(6) (N:C)	4.4	2463
(66) (O:N) O	3.9	4347		3.9	5128	(6) ₂ (N:C) ₂	4.0	2557
	3.6	4351	(N ₃ 66:O)	3.2	5130	(6) (N:C) (C:C)	4.5	2594
(O:66:O)	3.4	4454	(N ₄ 66:O) (O:C) O	4.2	7010	(6) (O:C) ₂ (C:C) ₃ O	4.6	3373
(6 ₃)	4.0	4685			7327	(O:6:O)	3.4	3957
(6 ₃) (O:C)	3.7	4700	(O5) (O:C) ₂ (C:C) ₂ O	4.8	7491		4.2	3973
(6 ₄)	2.7	4924	(O:ON5:C) (6) ₂	4.5	7811	(66) ₂ (N:C) ₂	4.4	4253
	3.2	4927		4.6	7821	(O:66:N:N)	3.8	4525
	2.5	4930				(6 ₄)	3.2	4923
	2.9	5005					3.0	4925
(6 ₄) (O:C) O	2.9	5032	$\lambda_{\max.}$: 387-387.5 μ				3.1	4926
	4.1	5033					3.1	4974
(6 ₅)	3.8	5077	(N:C) (C:C)	4.4	421	(6 ₆)	3.0	5112
(6 ₈)	4.8	5166		4.4	447		3.9	5126
(N ₆ ₄)	3.5	6054		4.4	459		3.9	5127
(N ₂ 66)	3.4	6668	(6) ₂ (N:N)	4.4	2174	(N ₆ 5) (O:6:O)	3.7	5585
(N ₂ 66) (6) (C:C) ₂	4.5	6710		4.3	2294	(N ₂ 6 ₃)	3.9	6817
(N ₂ 66:O)	3.6	6718	(6) (O:C) (C:C) ₄	4.8	3028	(N ₄ 66)	3.8	7306
(N ₂ 6 ₃ 5)	3.6	6835	(6) ₂ (O:C) (C:C)	4.4	3061	(O5) (N:C)	4.4	7415
(O:N ₄ 66:O)	3.4	7329		4.4	3086	(O:ON5:C) (6) ₂ (O:N) O	4.5	7873
(O5) (O:N) (N:C) O	4.2	7500	(66) (6) (O:C)	3.6	4429		4.5	7880
			(75)	3.9	4559	(SN65:C) (N:C)	4.7	8291
(O:ON5:C) (6) ₂	4.4	7831	(O:6 ₃ :O)	4.0	4808			
	4.5	7832	(6 ₄)	3.2	4922	$\lambda_{\max.}$: 389-389.5 μ		
(O:ON5:C) (6) ₂ (O:N) O	4.5	7868		3.2	4931			
				3.1	4943	(N:C) (C:C)	4.4	422
(S5) ₄	4.5	7984		3.5	4949		4.4	426
(S665) (O:N) O	3.8	8144		2.9	4973		4.4	436
				3.1	4989	(O:C) (C:C) ₅	4.6	865
(SN6 ₃ :O)	4.0	8376	(6 ₄) (O:C) O	3.1	5035	(6) ₂ (N:N)	4.4	2177
			(6 ₄) (O:N) O	3.5	5041	(6) (N:C)	4.3	2457
$\lambda_{\max.}$: 386-386.5 μ						(7:O)	3.7	4056
(6) ₂ (N:N)	4.5	2303	(6 ₄ 5 ₂)	4.4	5106	(66) (6) (N:N)	4.2	4400
(6) ₂ (O:C) (C:C)		3082	(6 ₆)	5.0	5111		3.8	4408
(6) (O:N) O	4.3	3505	(N66)	3.0	5691	(75) (6)	4.2	4592
	4.3	3514	(N6 ₄)	3.6	6056	(6 ₃)	4.0	4659
			(N ₂ 6 ₅)	3.2	6854	(6655)	4.0	4870
						(6 ₄)	3.1	4928

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	3.2	4988		4.0	5009	(O:C) (C:C) ₂	4.8	823
	3.2	4990	(6 ₄) (O:C)	4.4	5022	(O:C) (C:C) ₆	4.8	869
(6 ₄) (6)	3.4	5044	(O:6 ₄ :O)	3.4	5055	(6) ₂ (N:N)	4.0	2272
(6 ₅)	4.4	5082	(6 ₅) (6) ₂	4.7	5097		4.0	2274
(O5) (N:C)	4.4	7420	(66)	4.0	5134	(6) ₅ (N:N) ₄	4.1	2390
(O5) (O:C) (C:C) ₄	4.7	7449	(67)	5.1	5156	(6) (O:C)	3.7	2814
			(N66)	3.9	5688	(6 ₃) (C:C)	3.9	4696
			(N66) (6) (C:C)	4.0	5831	(6 ₃) (66) ₂	3.9	4729
$\lambda_{\max.}$: 390-390.5 μ			(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7878	(O:6 ₃ :O)	3.0	4730
(C:C) ₇	4.6	207	(S5) ₄	4.5	7983	(6 ₃ 5)	4.0	4884
([C:] ₉ C)	4.2	302				(6 ₄ :O)	4.0	5052
						(6 ₅)	3.1	5071
(6) ₄ (N:N) (N:N) ₂	4.8	2408	$\lambda_{\max.}$: 392-392.5 μ				4.4	5088
(6) (N:C)	4.5	2450	(C:C) ₁₃	4.4	223	(6 ₅ :O)	3.5	5101
	4.4	2467	(N:C)	4.3	347		3.9	5103
	4.4	2468	(N:C) (C:C) ₂	4.6	487	(67)	4.8	5152
(6) (N:C) (C:C)	4.6	2585		4.3	506	(N6 ₃)	4.0	5996
(6) ₂ (O:C) (C:C)	3.9	3050	(6) (N:C) (C:C)	4.6	2590	(N ₂ 6) (6) (C:C) ₄	4.9	6388
(O:6:O)	3.2	3947	(6) ₂ (O:C) (C:C)	3.2	3057	(O:ON5:C) (6) ₂ (O:N) ₀	4.4	7858
(66) (O:C)	3.3	4265	(6) (O:N) ₀	3.2	3579	(S6) (6) ₂		8075
	3.2	4279	(6) (O:N) (O:C)	3.6	3869	(S665) (O:N) ₀	3.7	8145
(O:66:O)	3.6	4478						
(6 ₃)	3.8	4672	(O:6:N)	1.2	4024	$\lambda_{\max.}$: 394-394.5 μ		
(6 ₄)	2.6	4944		1.3	4027	(N:C) ₂	4.4	378
(6 ₄) (O:C) (O:C) ₀	3.5	5039	(7:O)	4.1	4042		4.4	385
(6 ₅)	3.9	5084		3.7	4058	(O:C) (C:C) ₂	4.6	781
(6 ₅ :O)	3.8	5105	(7:O) (6)	4.0	4074	(O:C) (O:C) (N:C)	4.2	1217
(N6) (O:C)	3.8	5411	(66) (O:C)	4.0	4284			
(N6 ₃)	3.9	5995	(66) (6) (N:N)	4.3	4401	(6) ₂ (N:N)	4.0	2273
	3.6	6017	(6 ₃)	3.9	4673	(6) (O:C)	3.6	2776
	3.7	6018	(6 ₃) (6) ₂	4.0	4721		3.6	2801
(N ₂ 66)	2.4	6660	(6 ₄)	3.2	4945	(6) (O:C) ₂	3.9	2855
(N ₂ 75)	3.0	6762		3.2	5007	(6) (O:N) ₀	4.3	3520
(N ₂ 75) (6)	4.4	6763	(6 ₅) (N:C)	4.4	5092			
(O5) (N:C)	4.4	7414	(N66) (O:N) ₀	3.8	5814	(N:6:N:N)	4.5	3933
(O:ON5:C) (O5) (6)	4.6	7897	(N6 ₃)	3.6	6016	(6 ₃)	3.9	4675
(S5) (O:ON5:C) (6)	4.5	8070	(N6 ₄)	3.4	6050	(6 ₅)	4.4	5081
(S:SN5: ₀ :C) (66)	4.4	8238	(O:N ₄ 66:O)	3.9	7331		4.1	5090
			(O6 ₃ :O)	3.8	7769		4.4	5091
			(O:ON5:C) (6) ₂ (O:N) ₀	4.6	7860	(6 ₅ :O)	4.0	5104
$\lambda_{\max.}$: 391-391.5 μ			(S5) (N:C)	4.4	7990	(N65) (O:6:O)	3.5	5586
(6) ₄ (C:C) ₄	4.9	2132				(N6 ₃)	3.6	6014
(6) ₂ (N:C)	4.3	2511	$\lambda_{\max.}$: 393-393.5 μ			(N6 ₃ 5)	3.7	6049
(6) (O:N)	4.4	3462				(N ₂ 66) (6) ₂ (C:C) ₆	4.9	6714
(6) (O:N) ₂	3.8	3687	(N:C) (C:C)	4.3	429	(N ₂ 66:O)	3.5	6716
				4.5	438	(N ₂ 6 ₄)	3.7	6846
(6 ₃)	3.8	4674	(N:C) (C:C) ₂	4.4	475	(N ₂ 6 ₅ 5 ₂)	4.2	6856
(6 ₄)	3.1	4946	(N:C) (C:C) ₅	5.0	528	(O:O5:C) (6) ₂	4.4	7561
	3.2	4992				(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7857
						(S5) (O:ON5:C) (6)	4.6	8065

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(SN65:C) (6) (N:C)	4.6	8295	(O:ON5:C) (6) ₂ (O:N) ₀	4.4	7855	$\lambda_{\max.}$: 400-404.5 μ		
$\lambda_{\max.}$: 395-395.5 μ			(SN5) ₂ (6) ₈	4.3	8196	(C:C) ₁₃	4.6	224
			(SN65:C) (SN65)	4.8	8318	(N:C) ₂	4.4	384
(N:C) ₂	4.6	382	$\lambda_{\max.}$: 397-397.5 μ			(N:C) (C:C)	4.5	398
(N:C) (C:C) ₂	4.4	479					4.4	416
	4.5	495	(N:C) (C:C)	4.3	404	(N:C) (C:C) ₂	4.5	476
(N:C) (C:C) (C:C) ₂	4.5	560	(6) ₂ (C:C) ₄	4.3	2140		4.7	485
(O:C) (C:C) ₆	4.8	873	(6) ₂ (C:C) ₅	4.4	2141		4.6	499
(O:C) (N:C) (C:C) ₂	4.5	1160	(6) ₂ (O:C) (C:C)		3083	(O:C) (C:C) ₆	4.7	872
			(6) ₆	4.9	5116	(O:C) (O:C) (N:C)	4.1	1216
(6) ₂ (N:C) (C:C)	4.6	2600	(N6:O)	3.8	5513			
(6) ₂ (O:C) (C:C) ₄	4.8	3109	(O:O5:C) (6) ₂	4.5	7557	(6) (C:C)	3.6	2030
(6) (O:N) ₀	3.4	3560		4.5	7558	(6) ₂ (C:C) ₅	5.0	2116
	3.7	3563		4.5	7560	(6) ₄ (C:C) ₄	4.9	2131
(7:O) (6)	3.8	4080		4.5	7560	(6) (N:N)	1.9	2147
(66) (O:C)	3.9	4264	(O:O65:C) (6)	4.5	7637	(6) ₂ (N:N)		2181
(66) (6) (N:N)	4.2	4394	(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7885			2200
(O:66:O)	3.3	4473	(S:SN5: ₀ C) (S5)	4.5	8239			2206
	3.5	4481				(6) ₃ (N:N) ₂	3.1	2367
(O:66:O) (C:C)	3.1	4518	$\lambda_{\max.}$: 398-398.5 μ			(6) ₅ (N:N) ₄	4.8	2389
(6 ₃)	3.8	4679	(N ₂ 66:O)	3.6	6736		4.8	2391
(6 ₄)	3.9	4972	(O5) ₂ (N:C) ₂ (C:C) ₄	4.9	7432	(6) (N:C)	4.1	2393
	3.3	4986	(O:O65:C) (6)	4.4	7636		4.5	2429
(6 ₄) (O:C) ₀	3.3	5034	(O66:O) (6)		7722		4.3	2433
			(O:ON5:C) (6) ₂	4.5	7824	(6) ₂ (N:C) ₂	4.5	2454
(6 ₅ :O)	4.1	5099	(S:SN5: ₀ C) (S65)	4.5	8246	(6) ₂ (O:C) ₂	4.8	2528
(6 ₆)	4.3	5110					1.9	2912
(O:N65:C)	3.7	5611	$\lambda_{\max.}$: 399-399.5 μ				2.0	2913
(N6 ₄)	3.8	6057	(O:C) (C:C) ₆	4.7	868		1.9	2914
(N ₂ 66) (6) ₂ (C:C) ₂	4.3	6712	(6) ₂ (N:C) (C:C)	4.6	2601	(6) (O:C) (C:C) ₂	1.9	2916
(N ₂ 66:O)	3.5	6727	(6) (O:C) ₂	4.0	2854	(6) (O:C) (C:C) ₅	4.3	3019
(N ₂ 635)	4.2	6842	(6) (O:N) ₂	4.1	3691	(6) ₂ (O:C) (C:C) ₄	4.8	3033
(O:O5:C) (6) ₂	4.5	7556					4.8	3108
(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7883					4.8	3110
			(O:6:N)	4.4	4026	(6) (O:N)	3.3	3468
$\lambda_{\max.}$: 396-396.5 μ				3.8	4029		3.8	3472
(6) ₂ (N:C) (C:C)	4.5	2604	(75) (6)	4.2	4594	(6) (O:N) ₀	3.7	3495
(6) (O:N) ₀	4.4	3650	(6 ₃)	3.9	4682		3.7	3496
			(6 ₄) (C:C)	2.9	5014		3.1	3510
(7:O) (6)	4.0	4066	(6 ₄) (6)	4.0	5045		4.6	3519
(O:6 ₃ :O)	3.3	4820	(6 ₅)	3.0	5078		4.4	3521
(6 ₄) (N:C)	3.8	5016	(6 ₈)	4.1	5163	(6) (O:N) ₂	3.5	3542
(6 ₅) (O:C)	4.4	5094	(O:N ₂ 66:N)	4.1	6761		3.3	3543
(6 ₆)	4.1	5120	(O5) (6) ₃ (O:C) (O:C) ₀	4.4	7552	(6) (O:N) ₀	4.3	3582
(N66) (6) (C:C)	4.6	5832	(Se665) (O:N) ₀	3.7	8418		4.4	3682
(N6 ₃)	3.7	6012				(6) ₂ (O:N)	3.7	3695
(N6 ₅)	4.3	6067					4.3	3743
(N ₃ 635)	3.7	7014				(6) ₂ (O:N) (N:N) ₀	4.3	3832
(O:O5:C) (6) ₂	4.4	7562					4.3	3833
(O:ON5:C) (6) ₂	4.5	7825				(6) ₂ (O:N) (O:C) ₀	4.3	3877

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N:6:N)	4.8	3921	(N ₂ 66) (O:N) O	3.9	6693	(N:6:N) (6) ₂ (O:N) O	4.5	3928
(O:6:N)	3.0	4022						
	3.8	4032	(N ₂ 66) (6) (C:C) ₃	3.5	6711	(7:O) (6)	4.1	4069
	3.8	4035	(N ₂ 66:O)	3.5	6715		4.3	4073
(7:O) (6) (O:N) O (C:C)	3.9	4091		3.5	6725		3.9	4081
				3.5	6726	(7:O) (6) (O:N) (C:C) O	4.1	4092
(66)	2.8	4175	(N ₂ 665)	3.2	6770			
	2.8	4176	(O5) (N:C) (C:C)	4.6	7427	(66) ₂ (N:C) ₂	4.5	4258
(66) ₂ (C:C)	4.5	4240	(O5) ₂ (O:C) ₂ (C:C) ₂	4.1	7455	(66) (O:C)	4.0	4262
(66) ₂ (N:N)	4.2	4244	(O5) (6) (N:C) (C:C)	4.6	7543	(66) (6) (N:N)	4.1	4393
(66) (O:C)	3.8	4273	(O:O5:C) (6) ₃	4.5	7563	(O:66:O)	3.7	4485
(O:66:O)	3.3	4452	(O:ON5:C) (6) ₂ (O:N) O	4.5	7876		3.6	4500
	3.5	4453		4.4	7884		3.6	4501
	3.3	4460	(S5) (O:O5:C) (6)	4.5	8063	(O:66:O) (C:C)	3.2	4519
	3.4	4480	(S:SN5: ^O :C) (6)	4.5	8237	(O:66:O) (66)	3.4	4523
(75) (O:N) O	4.0	4588				(63)	4.3	4649
			(S:SN5: ^O :C) (S5)	4.5	8244		3.6	4665
(6 ₃)	3.9	4680		4.6	8246		3.9	4685
	3.9	4681	(SN65) (6) (C:C)	4.4	8286	(O:6 ₃ :O)	2.0	4732
	3.7	4683	(SN65:C) (6) (N:C)	5.7	8297		5.0	4735
	3.8	4684					3.8	4760
(6 ₃) (6)	4.0	4717					3.6	4813
(O:6 ₃ :O)	3.7	4754	λ _{max.} : 405-409.5μ				3.7	4827
	3.7	4788				(O:6 ₃ :O) (6)	3.0	4846
	3.9	4805	(C:C) ₁₅	4.2	228	(64)	3.9	4969
(6 ₄)	3.2	4966	(N:C) (C:C)	4.5	413		4.0	4970
	3.4	4993	(N:C) (C:C) ₂	4.5	496		4.3	4977
	3.6	4999		4.5	503		3.5	4979
	3.8	5018	(N:C) (C:C) ₃	4.7	512		3.3	4982
(6 ₄ 5)	4.2	5060		4.6	513		4.2	5001
(6 ₄ 5) (O:C) ₂ N	4.1	5064		4.6	518	(6 ₅)	4.8	5075
			(N:C) (C:C) ₇		533	(6 ₅) (6) ₂	4.6	5097
(6 ₄) (O:C)	3.9	5023	(6) ₂ (N:N)	4.3	2190	(6 ₅ :O)	4.2	5098
(6 ₅)	3.6	5073			2194	(6 ₅ 5)	4.0	5107
	3.1	5076			2202	(6 ₆)	4.5	5124
(6 ₅) (N:C:O)	4.5	5096		4.5	2305		3.3	5130
(6 ₅ :O)	4.1	5100	(6) ₃ (N:N)	4.6	2358	(6 ₇)	4.7	5157
	4.0	5102	(6) ₅ (N:N) ₄	4.9	2392		4.7	5160
(6 ₆)	3.3	5113	(6) (N:C) (C:C)		2588	(O:N65:O)		5606
	4.1	5121	(6) (O:C)	3.4	2804			5607
	4.2	5122		3.7	2807	(N665)	4.1	5936
(6 ₇)	3.3	5142	(6) ₂ (O:C) ₂	1.7	2915	(N665) (O:N) O	3.9	5952
(6 ₈)	4.7	5172	(6) (O:C) (C:C) ₅		3034			
(N6:C) (N:C)		5495	(6) (O:N)	4.4	3458	(N6 ₃)	3.7	5986
(N65) (O:66:O)	3.4	5588		4.3	3461		4.0	5998
	3.1	5590		4.0	3476	(N6 ₄)	3.9	6060
(O:N65:O)		5604	(6) (O:N) O	3.6	3539			
(N66:S)		5914		3.9	3551	(S:N ₂ 5: ^O :C) (6)	4.4	6127
		5916		4.3	3653	(N ₂ 66)	3.5	6669
(N66:S) (6)		5918	(6) ₂ (O:N) (N:N) O	4.3	3826	(N ₂ 6 ₃)	3.5	6815
(N6 ₃)	3.5	5992		4.4	3827		3.6	6816
	4.0	5997	(6) (O:N) (O:C) O	4.2	3868	(N ₂ 6 ₄)	3.9	6849
	3.5	6010				(O5) (N:C) (C:C)	4.5	7429
(N6 ₃ :O)	3.9	6045				(O:O5:C) (6) ₂	4.5	7559

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(O:O65:C) (6)	4.4	7638	(7:O)	3.9	4050	$\lambda_{\max.}: 415-419.5\mu$		
(O:ON5:C) (6) ₂ (O:N) ₀	4.4	7851	(66) (6) (N:N)	4.1	4391			
	4.5	7872	(O:66:O)	3.7	4497	(O:C) ₂	0.0	622
	4.5	7875		3.0	4499	(O:C) (C:C) ₇	4.8	875
	4.5	7882	(75) (O:N) ₀	4.1	4589	(O:C) ₂ (C:C) ₅		1144
(S5) (O:ON5:C) (6)	4.6	8066						
	4.6	8073	(75) (6) (N:N)	4.5	4595	(6) ₂ (N:N)	4.6	2193
(S:SN5:O:C) (S5)	4.4	8240	(O:63:O)	3.7	4755	(6) (N:C)	4.5	2460
	4.5	8241		3.9	4806	(6) (O:C) ₂	3.8	2848
	4.5	8242		3.7	4810		4.2	2856
				3.9	4821	(6) ₄ (O:C)	4.8	2936
				3.9	4828	(6) ₂ (O:C) (C:C)	4.5	3065
			(O:63:C) (6) ₂	4.0	4855	(6) ₂ (O:C) (C:C) ₅	4.8	3112
$\lambda_{\max.}: 410-414.5\mu$			(6655)	4.1	4870		4.9	3113
			(65) (N:C)	4.5	5092		4.8	3114
(C:C) ₉	5.3	211	(65) (O:C)	4.4	5094	(6) (O:N)	4.5	3456
(N:C) (C:C) ₂	4.6	482	(65:O)	4.0	5103	(6) (O:N) ₀	3.5	3506
	4.4	483		4.0	5104		3.7	3540
(N:C) ₂ (C:C) ₈	4.2	549	(645 ₂)	4.6	5106		3.3	3541
(N:N:C)	0.5	583	(655)	4.2	5108		3.5	3553
(O:C) (C:C) ₂	4.7	780	(66)	3.8	5125		3.8	3554
(O:C) (N:C) (C:C) ₅		1161		4.0	5126		3.7	3576
				4.0	5128		2.9	3601
(O:C) (O:C) (C:C) ₅		1198		4.0	5134		4.2	3612
			(67)	2.6	5151		3.9	3656
(6) ₄ (C:C) ₅	5.0	2133	(N6) (6) (N:N)	4.5	5481	(6) (O:N) ₂		3689
(6) ₂ (N:N)	4.4	2184	(O:N65:O)	2.9	5597		3.5	3692
	4.5	2185	(N66) (6) (C:C) ₂	4.4	5835	(6) ₂ (O:N) (N:N) ₀	4.4	3829
	4.4	2186		4.6	5836			
	4.4	2187	(N665)	4.2	5933	(N:6:N)	4.8	3922
	4.3	2197	(N63)	3.8	5983	(N:6:N) (6)	4.6	3923
(6) ₃ (N:N)	4.6	2355		3.8	5990	(N:6:N) (6) ₂	4.7	3925
	4.5	2357		3.5	6006	(O:6:O)	1.4	3985
(6) (N:C)	4.5	2461	(N63) (6)	3.8	6034	(7:O)	3.8	4055
(6) (O:C)	3.7	2806	(N64)	4.0	6061	(66) (6) (N:N)	4.3	4383
(6) (O:C) (C:C) ₅		3032	(N26) (6) (C:C) ₅	4.9	6389	(O:66:O)	3.3	4459
(6) ₂ (O:C) (C:C) ₃	4.4	3102	(N265)	3.2	6854		3.6	4476
(6) ₂ (O:C) ₂ (C:C) ₆	4.8	3123	(N2655 ₂)	4.3	6856	(75) (6) (N:N)	4.5	4595
(6) (O:C) (O:C) (C:C)	3.5	3425	(O5) ₂ (N:C) ₂ (C:C) ₄	4.9	7432	(63) (6) ₂ (N:C)	4.3	4725
			(O5) (O:C) (C:C) ₅	4.9	7450	(O:63:O)	3.8	4761
(6) (O:N) ₀	3.7	3497	(O5) ₂ (O:C) (C:C) ₄	4.3	7453		4.0	4799
	3.8	3552	(O:O5:C) (66) (6)	4.3	7564	(635:N)	3.4	4893
	3.1	3564	(O665) (O:O5:C) (6)	4.5	7760	(635:O)	3.0	4897
	3.2	3603	(O:ON5:C) (6) ₂ (O:N) ₀	4.5	7863	(64)	3.6	4906
	4.3	3606		4.5	7870		4.2	5003
	4.2	3648		4.4	7886	(64) (O:C)	3.2	5027
(6) (O:N) ₃	3.8	3727	(S5)	3.7	7969	(65) (6) ₂	4.7	5097
	4.5	3730	(S5) (O:ON5:C) (6)	4.6	8067	(66)	4.0	5127
	4.4	3736		4.6	8068	(611)	4.1	5193
(6) ₂ (O:N) (N:N) ₀	4.4	3830	(S65) (O:ON5:C) (6)	4.5	8113	(N6) (O:C) ₂	2.3	5436
			(SN65:C) (6) (N:C)	5.7	8296			
(6) (O:N) (O:C) ₀	2.7	3890				(N6) (6) (N:N)	4.6	5482
						(N65:O)	2.9	5596
(N:6:N) (6) ₂	4.8	3927				(O:N65:O)		5599

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
		5601	(66) (O:N)	2.9	4331	(6) (N:N)	2.3	2153
(N66)	3.3	5682	(66) (6) (N:N)	4.3	4381	(6) ₂ (N:N)	4.2	2234
(N75:O) (N:C)	4.2	5923		4.5	4390		3.1	2342
(N665)	4.1	5932	(O:66:O) (C:C)	3.3	4514	(6) ₃ (N:N)	4.6	2361
	4.2	5935	(O:6 ₃ :O)	3.8	4762		4.6	2363
(N6 ₃)	3.9	5987	(O:6 ₃ :O) (6) ₂	3.9	4852	(6) ₂ (N:C)	4.8	2508
(N ₂ 66)	3.6	6678		4.1	4860	(6) (N:C) (N:N)	2.8	2644
(N ₂ 66) (O:N)	4.1	6695	(6655) (6) ₂	4.2	4872	(6) (O:C)	3.5	2719
O			(76 ₃)	2.6	5058	(6) (O:C) (C:C)		2971
(N ₂ 6 ₆)	4.2	6855	(6 ₅)	3.0	5078	(6) (O:C) (C:C) ₆		3037
(O6) (6) ₃		7571		4.2	5089			3038
		7572	(6 ₅) (O:C)	4.3	5093	(6) ₂ (O:C) ₂ (N:N)	3.0	3398
(O65) (6) ₂	4.5	7631	(6 ₆)	3.1	5117	O		
	4.4	7632		4.4	5119	(6) (O:N)	4.5	3460
(S5) ₅	4.6	7985		4.0	5120	(6) (O:N)	3.8	3504
(Se665) (O:N)	3.6	8417	(6 ₇)	3.1	5139	O	3.7	3555
O			(6 ₈)	4.1	5163			3566
			(N6:C)	3.2	5494		3.7	3637
$\lambda_{\max.}$: 420-424.5 μ				3.4	5496	(6) (O:N) ₂	3.8	3700
			(O:N65:O)		5600	O		
(N:C) (C:C) ₃	4.5	514		2.7	5602	(6) ₂ (O:N) (N:N)		3835
(N:C) (C:C) ₆		529	(N66)	3.6	5715	O	4.3	3838
(O:C) (C:C) ₇	4.9	874		3.8	5765	(N:6:C) (6) ₂	4.3	3939
(O:C) (C:C) ₇		1102	(N66:C) (N:6:C)	4.5	5853	(7:O)	3.9	4060
O			(N66:N) (N66)		5960	(7:O) (6)	4.3	4073
(O:C) ₂ (C:C) ₇		1147	(N66:S) (O:C)		5917		4.1	4077
O						(66) (6) (N:N)	4.3	4380
(O:C) ₂ (C:C) ₂ (C:C) ₇	4.6	1156	(N75:O) (O:C)	4.2	5925	O	4.4	4382
O						(O:66:O)	3.6	4477
(O:C) (O:C) (C:C) ₅		1199	(N ₄ 5)	3.8	7021		3.3	4494
O			(O:N ₄ 6 ₃ :O)	3.2	7357	(6 ₃) (6)	4.0	4717
(6) ₂ (C:C) ₆	5.1	2117	(O5) ₂ (O:C) ₂ (C:C) ₄	4.4	7456	(O:6 ₃ :O)	3.8	4803
(6) ₂ (C:C:C:C)	4.6	2144	(O6) (6) ₃		7574		4.1	4826
(6) (N:N)	2.3	2149	(O66) (6)		7670			4832
(6) ₂ (N:N)	2.8	2161	(O:ON5:C) (6) ₂ (O:N)	4.5	7877	(O:6 ₃ :C) (6)	4.1	4850
	3.2	2168	O			(O:6 ₃ :C) (6) ₂	3.9	4853
	4.4	2299	(S5) (O:ON5:C) (6)	4.6	8069		3.8	4856
(6) ₃ (N:N)	4.5	2354	(S:SN5:O) (S5)	4.5	8243	(6 ₃ 5:O)	3.0	4898
	4.5	2356	C			(6 ₄)	3.7	5021
(6) ₂ (N:C)	4.4	2507	(SN65:C) (SN65)	4.9	8319	(6 ₄ 5)	3.9	5061
(6) ₃ (N:C)	4.5	2564				(6 ₅)	4.0	5079
(6) (O:C) (C:C)		2975				(6 ₇)	3.3	5142
(6) ₂ (O:C) (C:C)		3077	$\lambda_{\max.}$: 425-429.5 μ			(N66:C) (N:C)		5847
(6) (O:N)	4.5	3457	(C:C) ₇		208	(N75:O) (N:C)	4.3	5924
(6) (O:N)	4.3	3515	(N:C) (C:C) ₃	4.7	511	(N75:O) (O:C)	4.2	5926
O	4.3	3516	(O:C) (C:C) ₇	4.6	1100	O		
	4.0	3518	O			(N6 ₃)	3.6	5979
	4.2	3590	(O:C) (N:C) (C:C) ₅		1162		3.5	6007
	2.9	3605	O			(O5) (O:C) (C:C) ₆	4.9	7451
(6) ₂ (O:N) (N:N)	4.4	3824	(O:C) (N:C) (C:C) ₆		1164	(O5) ₂ (O:C) (C:C) ₆	4.4	7454
O	4.2	3837	O			(O66:O) (6)	4.4	7729
(N:6:N) (6) ₂	4.6	3924	(O:C) (O:C) (C:C) ₆		1202	(O:ON5:C) (6) (O:N)	4.5	7874
(O:6:O)	1.4	3963	O			O		
(7:O)	3.9	4061				(S5) (O:ON5:C) (6)	4.6	8071

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(SN65:C) (6) (O:C) (N:C) (C:C)			(O:6 ₃ :O)	3.6	4743		1.3	3955
	4.5	8305		3.4	4744		1.4	3956
				4.2	4801		1.5	3958
				4.1	4818		1.4	3962
$\lambda_{\max.}$: 430-434.5m μ				3.9	4822		1.5	3968
				4.1	4825		1.5	3970
(C:C) ₈		209	(O:6 ₃ :C) (6) ₂	3.9	4854	(66) (6) (N:N)	4.4	4384
(C:C) (C:C) ₁₀	5.0	275	(6 ₄)	3.8	4953		3.5	4398
(N:C)	4.2	339		3.5	4983		4.4	4407
	4.3	350	(6 ₅)	4.5	5075	(66) ₂ (N:6:N)	4.5	4448
(O:C) (C:C) ₆		871	(6 ₆)	3.1	5116	(O:6 ₃ :O)	4.0	4781
(O:C) ₂ (C:C) ₇		923		4.9	5124		4.8	4795
(O:C) ₂ (C:C) ₇		1145	(6 ₇)	4.7	5157		4.0	4799
				4.7	5160		3.9	4817
(6) ₄ (C:C) ₆	5.1	2134	(6 ₁₁)	4.1	5193		4.1	4819
(6) ₂ (C:C) ₈	4.1	2142	(O:N65:O)		5605	(6 ₃ 5:O)	3.4	4899
(6) ₂ (N:N)	4.3	2162	(N6 ₃)	3.6	5991	(6 ₄)	4.1	4980
	4.6	2195		4.3	6001	(6 ₅ :O)	4.0	5104
	3.2	2218	(N6 ₄)	4.0	6061	(6 ₅ 5)	4.2	5108
	3.2	2221	(N ₂ 6) (6) (C:C) ₆	5.0	6390	(6 ₆)	3.9	5126
	3.0	2229	(N ₂ 6 ₄)	3.6	6848	(6 ₇)		5148
	3.0	2232	(O5) ₂ (N:C) ₂ (C:C) ₆	5.0	7433		3.2	5153
	4.4	2291	(O66) (6)	4.0	7647	(N6) ₂	3.7	5380
	4.1	2296	(O6 ₃ :65:O)		7779	(N6) (6) ₃		5454
		2324	(ON5:C) (N66)		7795	(N66) (6) (C:C) ₆	4.9	5839
	3.3	2344	(S6) (6) ₃		8083	(N6 ₃)	3.5	5982
(6) ₃ (N:N) ₂	3.1	2374	(O:S65:C) (S65)		8122	(N6 ₃ :C) (N:C)		6036
(6) ₆ (N:N) ₃	3.4	2384				(O:N ₂ 65:O)	3.6	6658
(6) (N:C)	4.5	2444				(O:N ₂ 65:O) (O:C)	3.6	6659
(6) (N:C) (N:N)	3.1	2643						
(6) (O:C) (C:C) ₆		3036	$\lambda_{\max.}$: 435-439.5m μ			(N ₂ 6 ₃)	3.8	6800
(6) ₂ (O:C) (C:C) ₆		3118	(C:C) ₈		210	(O5) ₂ (O:C) ₂ (C:C) ₆	4.5	7457
(6) (O:C) (N:N)	2.6	3160	(C:C) (C:C) ₁₁	5.0	276	(O5) (6) ₄	2.8	7535
(6) ₂ (O:C) (N:N)	4.3	3389	(N:C)	4.4	342	(O65) (6) ₄	4.6	7633
			(N:C) (C:C) ₈		535		4.6	7634
(6) ₂ (O:C) ₂ (N:N)	3.1	3397	(O:C) ₂ (C:C) ₇		1148	(ON65:C) (N66)		7930
(6) (O:N)	3.7	3598	(6) ₂ (C:C) ₇	5.1	2118	$\lambda_{\max.}$: 440-444.5m μ		
	3.7	3602	(6) ₂ (N:N)	3.1	2155			
(6) ₂ (S:C)	4.6	3906		3.1	2228	(C:C) ₁₀	5.1	217
(N:6:N)	3.7	3915		2.9	2243	(C:C) ₁₉	4.5	229
(N:6:N) (6) ₂	4.6	3926		4.5	2250	(N:C) ₂	4.5	382
(O:6:O)	1.3	3952		2.9	2310		4.4	383
	1.3	3953	(6) ₃ (N:N) ₂	3.2	2365	(N:C) (C:C) ₂		481
	1.3	3954	(6) (N:C) (N:N)	2.5	2642	(O:C) (C:C) ₇		877
	1.4	3959	(6) ₂ (O:C) (C:C) ₆		3117	(O:C) ₂ (C:C) ₇		920
	1.5	3961	(6) ₂ (O:C) ₂ (C:C) ₈	4.9	3124	(O:C) (O:C) (C:C) ₆		1200
	1.6	3967	(6) (O:N)	2.8	3508			
	1.4	3971				(6) ₂ (N:N)	3.0	2154
(7:O) (6)	4.1	4078	(6) ₂ (O:N) (N:N)	2.9	3821		2.7	2156
(66) ₂ (6) ₂ (N:C) ₂	4.5	4425					2.5	2157
(66) (6) (N:6:N)	4.7	4449	(O:6:O)	1.3	3950		3.1	2170
(O:66:O)	3.7	4470		1.3	3951		2.7	2191

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	3.1	2222		4.2	5938	(66) (6) (N:N)	4.2	4386
	2.7	2227		4.1	5939	(66) (6) ₂ (N:C)	4.7	4420
	2.9	2231	(N ₂ 6 ₃)	3.0	6810		4.5	4424
	2.8	2233	(O5) ₂ (N:C) ₂ (C:C) ₆	5.0	7433	(O:6 ₃ :O)	3.8	4739
	3.0	2277	(S6) (6) ₃		8084		3.8	4746
	4.6	2293	(SN5:C) (N5:C) (6)		8205		4.1	4785
	2.8	2308	(SN5:C) (N6)		8207	(O:6 ₃ :C) (6) ₂	4.1	4858
	2.9	2343				(6655) (6) ₂	4.2	4872
(6) ₄ (N:N) ₂	3.8	2379				(6 ₄)	3.9	4934
	4.1	2380	λ _{max.} : 445-449.5mμ			(6 ₄) (6) ₃	3.6	5047
(6) ₆ (N:N) ₃	4.6	2385					3.8	5048
(6) ₂ (O:C) (C:C)		3076	(C:C) (C:C) ₁₂	5.0	277	(76 ₃)	2.6	5058
(6) (O:C) (N:N)	2.1	3161	(N:C) (C:C) ₆		530	(6 ₆ :O)	3.5	5136
			(N:C) (C:C) ₇		531	(6 ₉)	4.9	5187
(6) ₂ (O:C) (N:N)	4.3	3393	(N:C) (C:C) ₉		537	(6 ₉ 5 ₂)	4.5	5192
			(N:C) ₂ (C:C) ₈		550	(6 ₁₁)	4.1	5193
(6) (O:N)	-1.8	3464	(O:C) (C:C) ₇		1101	(N75) (N:C)	3.2	5921
(6) (O:N)	3.3	3507					3.0	5922
			(O:C) (N:C) (C:C) ₈		1172	(N665)	4.1	5937
(6) ₂ (O:N) (N:N)	4.7	3819					4.1	5940
	4.5	3823	(O:C) (O:C) (C:C) ₈		1210	(N6 ₃)	4.5	5999
(6) ₃ (O:N) (N:N)	3.2	3845			1213		3.6	6003
			(6) ₂ (N:N)	2.5	2158	(N ₂ 6) (6) (C:C) ₇	5.0	6391
(6) (O:N) (N:C) (N:N)	2.4	3859		2.6	2160	(N ₂ 6 ₃)	3.9	6812
				2.8	2164	(O:N ₄ 6 ₃ :O)	4.4	7359
(O:6:O)	1.4	3996		2.8	2166	(O:65:C) (6)	4.5	7641
(O:6:N)	1.1	4037		2.8	2169	(S6) (6) ₃		8086
(7:O)	4.1	4059		3.1	2171	(S665) (O:N)	3.4	8148
(7:O) (6) (C:C)	4.5	4085		3.0	2223			
(66) (O:C)	3.7	4266		3.2	2224	(S665) (O:N)	3.6	8150
(66) (6) (N:N)	4.3	4379		3.0	2226			
	4.4	4387		3.1	2230	(SN65:C) (N:C) (C:C) (6)		
(O:66:O)	3.3	4484		4.4	2262		4.8	8298
	3.3	4493		3.2	2275			
(O:6 ₃ :O)	3.7	4745		2.9	2338			
	4.0	4783		2.8	2339	λ _{max.} : 450-454.5mμ		
	3.7	4835		3.3	2340			
(O:6 ₃ :C) (6)	4.1	4848		3.1	2348	(C:C) ₉		212
(6 ₄)	4.0	4906		2.9	2349	(N:C) ₂	4.4	383
(6 ₄ 5:O)	2.9	5065		3.3	2350		4.4	384
(6 ₅ :O)	4.0	5103		2.9	2351	(N:C) (C:C)	4.5	402
(6 ₆)	3.7	5125	(6) ₃ (N:N) ₂	3.0	2364		4.4	437
	3.8	5127		3.5	2369	(N:C) ₂ (C:C) ₉		552
(6 ₇)	5.1	5149	(6) (N:C) (C:C) ₂	4.9	2599	(N:N:C)	0.5	584
(N6) (O:C)	2.5	5433	(6) (O:C) (C:C)		2973	(O:C) (C:C) ₈		879
			(6) ₂ (O:C) (C:C) ₆		3116	(O:C) ₂ (C:C) ₇		921
(N6) (6) ₃		5450	(6) (O:N)	3.6	3599	(O:C) ₂ (C:C) ₈		925
		5451						927
		5452	(6) ₂ (O:N) ₄	4.0	3761	(O:C) ₂ (C:C) ₇		1146
		5453						
(N66)	3.5	5711	(6) ₂ (O:N) (N:N)	4.3	3836	(O:C) (O:C) (C:C) ₇		1204
(N66:C) (N:C)		5847						
(N66:C) (6) (N:C)	4.7	5849	(O:6:O)		3969	(6)	4.5	1497
(N665)	4.2	5934	(O:6:O) (6) ₂	4.5	4014	(6) ₂ (N:N)	2.3	2165

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
	3.4	2173	(O:C) ₃		632	λ _{max.} : 460-464.5mμ		
	4.3	2210	(O:C)(C:C) ₁₁		900			
	2.8	2244	(O:C) ₂ (C:C) ₇		922	(C:C) ₁₀		216
	3.2	2287	(O:C)(N:C)(C:C) ₆		1163	(C:C) ₁₁	5.2	219
	4.3	2317	O			(C:C) ₁₂	5.1	222
	3.0	2341	(O:C)(N:C)(C:C) ₇		1167	(O:C)(C:C) ₆		870
	3.0	2345	O			(O:C)(C:C) ₇		876
(6) ₃ (N:N)	3.0	2352	(O:C)(O:C)(C:C) ₆		1201	(O:C)(C:C) ₈		880
(6) ₃ (N:N) ₂	4.4	2366	O			(6)	4.5	1495
	3.5	2372	(O:C)(O:C)(C:C) ₇		1205	(6) ₂ (N:N)	3.6	2183
	3.6	2373	O				4.3	2212
	3.4	2377	(O:C)(O:C)(C:C) ₈		1208		4.2	2256
(6)(O:C)(C:C)		2976	O		1211		3.7	2304
(6) ₂ (O:N)(N:N)	4.4	3820	(6) ₂ (N:N)	4.3	2211		4.4	2318
O	4.6	3825		2.8	2225		3.0	2347
		3834		3.0	2270	(6) ₃ (N:N)	3.7	2353
(O:6:O)	1.3	3951		3.3	2346	(6)(N:C)	4.5	2432
	1.3	3953	(6)(N:C)	4.4	2465		4.5	2451
	1.4	3958		4.4	2474	(6) ₂ (O:C)(C:C) ₂	4.5	3101
(O:6:N)	0.9	4024	(6) ₂ (O:C)(C:C)		3079	(6)(O:N) ₃		3726
(66)(6)(N:N)	4.2	4390	(6) ₂ (O:C)(N:N)	4.4	3390	O		
	4.1	4391	O			(66)	3.5	4167
(66)(6) ₂ (N:C)	4.8	4423	(6)(O:N) ₃		3724	(66)(O:N)	3.4	4352
(O:66:O)	3.5	4469	O			O		
(665:665)	3.7	4602	(6)(O:N)(O:C)	4.1	3894	(66)(6)(N:N)	3.1	4377
(6) ₃ (6) ₂ (N:C)	4.2	4724	O				4.3	4392
(O:6 ₃ :O)	3.8	4731	(N:6:C)(6) ₂		3937	(O:66:O)	2.6	4473
(O:6 ₃ :C)(6)	4.1	4847	(O:6:O)	1.3	3954			4509
	4.1	4849		1.4	3959			4510
(6 ₄)	3.9	4953	(66)(O:N)	3.9	4348	(O:66:O)(C:C)	3.3	4517
(6 ₅)	4.0	5079	O			(665:C:C:C:C:C:665)		4608
	4.0	5090	(66)(6)(N:C)	4.4	4412			
(6 ₅ ₅)	3.3	5107	(66)(6) ₂ (N:C)	4.7	4421	(O:6 ₃ :O)	3.8	4748
(6 ₆)	4.6	5119	(O:66:O)	3.4	4472	(6 ₄)(6) ₃	3.8	5049
(6 ₈)		5167		3.5	4475	(6 ₄)(6) ₄	3.8	5051
(6 ₁₀)		5190	(665:665)	4.7	4601	(6 ₆)	5.1	5129
(N6 ₃)	3.8	5988	(O:6 ₃ :C)(6)	4.1	4851	(6 ₈)	5.1	5165
(N ₂ 665)	3.7	6787	(O:6 ₃ :C)(6) ₂	4.1	4857	(6 ₉)		5184
(O6)(6) ₃		7570		4.1	4859	(6 ₁₀)	4.7	5191
(O66)(6)	3.3	7644	(6 ₆)	4.4	5133	(N6) ₂ (N:N)	2.5	5408
			(6 ₈)	5.1	5168	(N6)(6)(C:C)	4.6	5457
(O6 ₃ :6 ₅ :O)		7779	(6 ₉)	4.6	5183	(O:N65:O)		5603
(SN5:C)(N5:C)(6)		8206	(6 ₁₀)		5190	(N6 ₃)	4.2	5989
(Se665)(O:N)	3.6	8416		4.7	5191		3.0	6008
O			(N6) ₂	3.8	5391		3.6	6014
			(N6)(6)(N:N)	4.6	5471	(N ₂ 75)(6)	4.5	6764
λ _{max.} : 455-459.5mμ			(N66)(6)(C:C) ₆	4.8	5839	(O5)(6) ₄	2.9	7531
			(N66:C)(N:C)		5848	(O66)(6)	4.7	7653
(C:C) ₈		209	(O:O665:O)	3.3	7761	(S6)(6) ₃		8082
(C:C) ₉		214	(O:ON5:C)(6) ₂	4.8	7810	(SN65:C)(6)(O:C)(N:C)(C:C) ₂	4.6	8306
(N:C)(C:C)	4.5	396	(SN65:C)(SN65)(C:C)					
	4.5	415		4.8	8320			
(N:C)(C:C) ₇		534						
(N:C)(C:C) ₁₁		539						

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
$\lambda_{\max.}: 465-469.5\mu$			(O:C) (N:C) (C:C) ₇ O		1165	(6) ₂ (N:N)	3.3	2163
(C:C) ₁₁	5.1	220	(O:C) (O:C) (C:C) ₇ O		1206	(6) (N:C)	4.5	2320
([C:] ₉ C)	4.2	302	(O:N)		1261	(6) (N:C) (C:C)	4.6	2445
(N:C) (C:C) ₈		536	(6) ₂ (N:N)	3.1	2288	(6) (O:C) ₂	4.5	2447
(O:C) ₂	1.5	624		3.1	2290	(6) (O:N) ₃ O	3.7	2584
(O:C) (C:C) ₉		891		3.6	2335	(6) ₂ (O:N) (N:N) O	4.4	2847
(O:C) ₂ (C:C) ₉		930	(6) ₃ (N:N)	3.7	2360		4.5	3723
		934	(6) ₃ (N:N) ₂	3.7	2376			3816
(6) ₂ (N:N)	3.3	2289	(6) ₂ (O:C) ₂	4.8	2376	(O:6:O)	1.1	3954
	2.4	2309	(6) (O:C) (C:C)	1.7	2918		1.1	3959
	4.4	2319	(6) ₂ (O:C) (N:N) N		2978	(7:O) (O:C) O	3.1	4063
(6) ₂ (O:C) ₂	1.7	2917	(O:6:C) (6)		3163			
(6) (O:C) (C:C) ₃	4.6	3027	(O:6:C) (6) ₂	4.3	4008	(66) (6) (N:N)	4.1	4389
(6) ₂ (O:C) (N:N) O	4.4	3391	(O:6:N)	4.5	4012		4.2	4404
(6) ₂ (O:N) (N:N) O		3817	(7:O) (O:C) (C:C) O	3.8	4023		4.2	4406
(66) (6) (N:N)	4.2	4385	(66) (O:N) O	3.0	4064	(O:6 ₃ :O)	3.8	4740
	4.2	4388					2.9	4742
	4.2	4408	(66) (6) (N:N)	3.5	4350		3.8	4751
(O:66:O)		4511	(O:66:O)	4.5	4410	(O:6 ₃ :O) (6) ₂	4.1	4861
(75) (O:C) ₂ O	4.4	4587	(O:6 ₃ :O)	3.2	4479	(N6 ₃ :C) (N6)		6037
(O:6 ₃ :O)		4775		3.8	4738	(O:N ₃ 65:O)	3.1	7008
	3.7	4792		3.8	4750	(O5) (N:C)	4.4	7416
(6 ₄) (6) ₄	3.8	5050		4.1	4753		4.4	7421
(6 ₈)	3.4	5169			4777	(O6) (6) ₃		7573
(N6) (6) (N:N)	4.3	5475			4779	(O:ON5:C) (6) ₂	4.5	7808
(N66:C) (N6)		5855		3.8	4780	(SN5) ₂ (6) ₄		8195
(N6 ₃)	4.1	6009	(O:6 ₃ :O) (O:N) O	4.0	4798			
	4.0	6015	(6 ₄)	3.8	4843	$\lambda_{\max.}: 480-484.5\mu$		
(O:N ₃ 65:O)	3.3	7007	(6 ₄) (6) ₃	4.1	4906	(N:C) ₂ (C:C) ₈		550
(O:S65:C) (S65)		8119	(N6) ₂ (N:N)	3.9	5047			551
(S665) (O:N) O	3.5	8146	(N6) (6) (N:N)	4.1	5048	(N:C) ₂ (C:C) ₉		552
(SN5:C) (N66)		8208	(O:ON5:C) (6) ₂	2.3	5409	(O:C) ₂	1.6	625
			(SN5) ₂ (6) ₈	4.3	5474	(O:C) (C:C) ₈		878
			(SN5:C) (N66)	4.7	7809			881
					8197	(O:C) (C:C) ₉		887
					8209	(O:C) (C:C) ₁₁		899
						(O:C) ₂ (C:C) ₈		924
$\lambda_{\max.}: 470-474.5\mu$								926
(C:C) ₉		215	$\lambda_{\max.}: 475-479.5\mu$			(O:C) ₂ (C:C) ₉		933
(C:C) ₁₀	5.1	217	(C:C) ₉		213	(O:C) ₂ (C:C) ₁₀		938
(C:C) ₁₂	5.2	221	(C:C) ₁₀	5.0	217	(O:C) (N:C) (C:C) ₇ O		1168
(N:C) (C:C) ₇		532	(C:C) ₁₁	5.0	218	(O:C) (N:C) (C:C) ₈ O		1169
(N:C) (C:C) ₉		538	(O:C) ₂	1.6	625			
(O:C) (C:C) ₉		884	(O:C) (C:C) ₉		889	(O:C) (O:C) (C:C) ₇ O		1203
		888	(O:C) (N:C) (C:C) ₈ O		1171			1207
(O:C) (C:C) ₁₀		896	(O:C) (O:C) (C:C) ₈ O		1209	(6)	4.5	1485
(O:C) (C:C) ₁₂		901	(6)	4.5	1212	(6) ₂ (N:N)	4.5	2321
(O:C) ₂ (C:C) ₉ O		1149			1496		4.5	2322
							4.7	2337

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(6) ₃ (N:N)	3.7	2362		4.3	4409		4.1	4820
(6) ₂ (O:C)(C:C)		3067	(O:66:O)	3.9	4490		4.1	4821
(6)(O:N) ₃ O	4.1	3722		3.8	4504	(6 ₄)(6) ₃	4.1	5049
(O:6:O)	2.5	3975	(O:6 ₃ :O)	3.8	4741	(6 ₄)(6) ₄	4.1	5051
(66)(6)(N:N)	4.2	4403		4.1	4772	(6 ₅ 5 ₂)	4.0	5138
	4.2	4413		3.9	4784		3.8	5159
(O:66:O)	1.7	4454			4811	(6 ₉)	4.9	5183
(O:66:O)(6)	3.4	4521	(6 ₈)	4.2	4823	(N65:C)(N65)	4.7	5595
(665:C:C:665)		4606	(N6 ₃)	3.1	5166	(N66:C)(N6)		5855
(O:6 ₃ :O)	3.8	4782	(N6 ₃ :C)(N6)	4.1	6000	(O5)(N:C)(C:C)	4.6	7428
	3.8	4790	(O66)(6)		6038		4.5	7430
	4.1	4800		4.7	7645	(O5)(6) ₄	3.2	7533
		4831		4.6	7648	(O66)(6)		7667
(O:6 ₃ :O)(O:N) O	3.9	4845	(ON65:C)(ON65)(C:C)		7932	(O6 ₃)(6)(O:C) O	4.5	7764
			(S5)(6) ₃		8085			
(6 ₄)	4.0	4934	(SN65:C)(6)(N:C)(C:C) ₂			(ON65:C)(ON65)(6) ₂ (C:C)		
(76 ₃)	2.6	5058		4.8	8301			7935
(6 ₅ 5)	3.3	5107	(SN65:C)(N66)	4.6	8309	(O:S65:C)(S65)		8123
(6 ₈)	4.6	5162	(SeN5:C)(N66)		8420	(SN5:C)(N:6:C)		8203
(N6)(6)(C:C)	4.6	5458	(SeN65:C)(N66)		8425	(SN65:C)(SN65)(C:C) ₂	4.8	8330
(N65)(O:66:O) ₂	3.6	5593						
(N66:C)(N6)		5857	$\lambda_{\max.}: 490-494.5\mu$			$\lambda_{\max.}: 495-499.5\mu$		
(N665)(O:N) O	3.7	5955	(C:C) ₁₃	5.2	224			
(N ₂ 6 ₃)		6821	(O:C)(C:C) ₁₀		893	(C:C) ₁₄	5.0	226
(O5) ₂ (N:C) ₂		7424	(O:C) ₂ (C:C) ₉		928	(O:C)(C:C) ₉		885
(ON65:C)(ON65)(C:C)		7931			931			890
(O:S65:C)(S65)		8117	(O:C) ₂ (C:C) ₁₁		939	(O:C)(C:C) ₁₀		895
		8124			942	(O:C) ₂ (C:C) ₉		933
(SN5:C)(N6 ₃)		8210	(O:C) ₂ (C:C) ₉		1150	(O:C) ₂ (C:C) ₁₀		935
(SN65:C)(N:C)(C:C)	5.1	8292	O			(O:C)(C:C) ₁₂		1105
	5.2	8293	(O:C)(N:C)(C:C) ₇		1166	O		
			O			(6)	4.6	1501
$\lambda_{\max.}: 485-489.5\mu$			(6)	4.6	1483	(6) ₂ (N:N)	4.7	2334
(O:C)(C:C) ₉		882	(6) ₄ (N:N) ₃	4.8	2388	(6) ₂ (O:N) ₂ (N:N)	4.3	3842
(O:C)(C:C) ₁₀		894	(6)(N:C)		2453	O		
(O:C)(C:C) ₁₁		897	(6) ₂ (N:C)	4.4	2512	(66)(6)(N:N)	4.3	4402
(O:C) ₂ (C:C) ₉		932	(6)(O:C) ₂	3.7	2846			4411
(O:C) ₂ (C:C) ₁₀		937	(6) ₂ (O:C) ₂	1.7	2917	(66) ₂ (6) ₂ (N:N) ₂		4414
(O:C) ₂ (C:C) ₁₂		945		1.7	2918	(O:66:O)	2.8	4477
(6)	4.6	1500	(6) ₂ (O:C)(C:C)		3063			4510
(6) ₄ (C:C:C:C:C:C)	5.1	2145	(6) ₂ (O:N)(N:N)	4.5	3818	(O:66:O)(C:C)	3.4	4515
(6)(N:C)(C:C)	4.6	2586	O			(6 ₃)		4677
	4.6	2591	(O:6:O)(6)	4.3	4009	(6 ₄)(6) ₄	4.1	5050
(6)(N:C)(C:C) ₂	4.8	2598	(66)(6)(N:N)	5.0	4395	(6 ₅)	3.6	5080
(6)(O:N) ₃ O	4.2	3736		4.3	4396			5083
				4.3	4397	(6 ₅ :O)	4.0	5101
(N:6:C)(6) ₂	5.0	3941		3.5	4399	(O:6 ₆ :O)	4.1	5137
(O:6:C)(6) ₂	4.5	4011	(66)(6)(O:C)(N:N) O		4447	(6 ₇ 5 ₂)	4.7	5182
	4.6	4017				(6 ₉)		5184
(66)(6)(N:N)	4.2	4405	(O:66:O)	4.3	4506	(N65) ₂ (O:6:O)	3.8	5587
					4509	(N ₂ 6)(O:C) ₂ O	2.5	6373
			(O:6 ₃ :O)	3.7	4789			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N ₂ 6 ₃)	3.4	6816	$\lambda_{\max.}$: 505-509.5 μ			(7665) (O:N)	3.4	5057
(O66) (6)	4.9	7657	(C:C) ₁₀	5.0	217	(6 ₆)	4.7	5109
(ON65:C) (ON65) (C:C)		7933	(C:C) ₁₃	5.2	223		3.9	5135
(SN65:C) (6) (N:C) (C:C)	5.0	8300	(C:C) ₁₅	5.1	228	(6 ₈)		5167
$\lambda_{\max.}$: 500-504.5 μ			(O:C) (C:C) ₉		883	(N6) ₂	3.9	5390
(C:C) ₁₀	5.0	217	(O:C) (C:C) ₁₁		898	(N6) (6) ₂ (C:C) ₂	4.8	5465
(C:C) ₁₃	5.2	223	(O:C) ₂ (C:C) ₁₁		940	(N ₂ 6 ₃)	4.0	6803
(O:C) ₂ (C:C) ₉		929	(O:C) (N:C) (C:C) ₈		1170	(O5) (6) ₄	3.1	7530
(6)	4.6	1484	(6) ₂ (N:N)	4.6	2205		3.2	7532
(6) ₂ (N:N)	4.4	2179		3.8	2330		3.1	7534
	4.6	2204	(6) ₂ (N:C) (C:C)	4.5	2602		3.2	7536
	4.1	2331	(6) ₂ (O:N) ₂ (N:N)	4.4	3843	(O5) (6) (N:C) (C:C)	4.6	7544
	4.6	2333				(O66) (6)	4.7	7646
(6) ₃ (N:N) ₂	4.7	2371	(O:6:C) (6) ₂	4.6	4016		4.6	7659
(6) ₅ (N:N) ₄	4.9	2394	(O:6 ₃ :O)		4831	(O:S65:C) (S65)		8123
(6) (O:N) (C:C)	4.4	3780	(O:6 ₃ :O) (O:N)	4.0	4842	(SN5:C) (ON65) (C:C)		8211
						(SN6 ₃ :C) (N66)	4.7	8378
(6) ₂ (O:N) ₂ (N:N)		3840	(6 ₄) (6) ₃	4.1	5047	$\lambda_{\max.}$: 515-519.5 μ		
			(6 ₈)	4.1	5048	(O:C) ₂ (C:C) ₁₀		936
(O:6:C) (6) ₂	4.5	4013		4.9	5164	(O:C) (C:C) ₁₂		1103
(O:66:O)		4511		5.0	5178			
(665:C:C:C:C:665)	4.8	4607	(N65) (O:66:O)	3.9	5589	(6)	4.5	1504
(O:6 ₃ :O)	3.9	4747	(N66:C) (N6)		5857	(6) ₂ (N:N)	4.6	2189
	3.7	4749	(O:N6 ₆ :O)	4.0	6068		4.4	2199
	3.8	4767	(N ₄ 6 ₃ :O) (6)		7366	(6) ₂ (O:N) (N:N)	4.6	3831
	4.1	4773	(O6) (6) ₃ (C:C)		7584			
		4774	(O66) (6)	4.6	7642			
(6 ₇)	4.4	5145	(SN5:C) (N:6:C)		8204			
	4.0	5158	(SN6 ₃ :O)	3.9	8374	(O:7:N)	4.6	4095
(N665) (O:N)	3.5	5954	$\lambda_{\max.}$: 510-514.5 μ			(O:66:O)	3.7	4504
			(C:C) ₁₃		225	(O:6 ₃ :O)	3.8	4757
(N6 ₃ :C) (N66)		6039	(N:C) ₂ (C:C) ₈		551		3.9	4824
(N ₄ 6 ₃ :O) (6)		7363	(N:C) ₂ (C:C) ₉		552	(6 ₇)	4.2	5154
(O5) (6) ₄	3.3	7537	(O:C) ₂ (C:C) ₁₂		943	(6 ₈)	4.7	5162
(O66) (6)	4.4	7649	(6) ₂ (N:N)		2182		3.3	5168
	4.0	7651			2201	(6 ₉)		5185
		7652			2207	(N65) (O:66:O)	3.5	5588
		7664				(N66) (O:C)	2.5	5812
(ON65:C) (ON65) (C:C)		7934		4.2	2325			
(ON65:C) (ON65) (6) ₂ (C:C)		7936		4.6	2326	(N66) (6) ₂ (O:C)	2.6	5842
				4.7	2328			
(O:S65:C) (S65)		8121		4.4	2332	(N66:C) (6) (N:C) (C:C)	5.0	5851
(SN65:C) (N66)	4.9	8310	(6) ₂ (N:N) ₂	4.9	2383	(N66:C) (N6)		5856
(SN665:C) (N66)	4.7	8354	(6) (N:C) (C:C)		2589	(N6 ₃ :C) (N6)		6038
	4.7	8355	(O:66:O)	3.9	4486	(O66) (6)	3.2	7644
				3.8	4498			7656
			(O:66:O) (C:C)	3.2	4516			7662
			(O:6 ₃ :O)	3.8	4804	(O6 ₃) (6) (O:C)		7763
			(7665)	3.6	5056			

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(SN65:C) (N:C) (C:C) (6)			(6 ₃)		4678	$\lambda_{\max.}$: 535-539.5m μ		
	5.0	8299	(O:6 ₃ :O)	4.2	4764			
					4832	(6)	4.6	1503
$\lambda_{\max.}$: 520-524.5m μ			(6 ₄) (6) ₃	4.1	5049	(6) ₂ (N:N)	3.1	2315
			(N6) ₂	3.2	5388	(66) (6) (N:N)		4411
				3.9	5389	(6 ₅)		5083
(N:C) (C:C)		399	(N66:C) (6) (N:C) (C:C)			(6 ₇)	4.0	5158
		403		5.0	5850	(6 ₇ 5 ₂)	4.8	5182
(6)	4.6	1502	(N665)	4.5	5929	(6 ₉)	4.7	5189
(6) ₂ (N:N)		2203		4.5	5931	(N6) (6) (N:N)		5477
	4.4	2327	(O6) (6) ₄ (C:C)		7589	(N65) (O:66:O)	3.6	5591
(O:6:O)	2.9	3973	(SN65:C) (N:6:C)	4.8	8308	(N665)	4.5	5930
(O:6:C) (6) ₂	4.7	4018	(SN65:C) (ON65) (6) (C:C)			(N6 ₃)		6820
(O:66:O)	1.8	4453			8313	(N ₄ 6 ₃ 5) (6)		7367
(O:6 ₃ :O)		4811	(SN6 ₃ :O)	3.9	8375	(O6) (6) ₃		7581
(O:6 ₃ :O) (O:N)	4.0	4844	(SN6 ₃ 5:C) (N66)	5.0	8379	(O6) (6) ₄ (C:C)		7590
						(O66) (6)		7661
(6 ₈)	4.9	5174				(O6 ₃ :6 ₅ :O)		7779
(6 ₉)	4.9	5186	$\lambda_{\max.}$: 530-534.5m μ					
(N6) ₂	3.9	5383	(C:C) ₁₅		227			
(N66:C) (N:6:C)	4.8	5852	(6) ₄ (C:C:C:C:C:C:C)		2146	$\lambda_{\max.}$: 540-544.5m μ		
(N66:C) (N:6:C)	5.2	5853				(O:C) (C:C) ₁₂		1104
(N66:C) (N66)	4.9	5858	(6) ₂ (N:N)	3.5	2329			
		6040	(6) ₂ (O:C) (C:C) ₃	4.6	3106	(6) (O:N) ₃		3726
(N6 ₃ :C) (N6 ₃)		6041	(6) ₂ (O:N) (N:N)	4.6	3828			
(N ₂ 66) (O:C) ₂	2.5	6692						
			(O:66:O)		4509	(N:6:C) (6) ₂	4.9	3942
(O66) (6)	4.5	7643			4510	(665:C:C:C:C:665)	5.3	4607
	4.1	7650	(75) (O:N)	2.8	4588	(665:C:C:C:C:C:665)		4608
	4.5	7654			4590	(6 ₇)	4.5	5143
		7655	(6 ₄) (6) ₄	4.1	5050	(N6) (6) (N:N)		5478
		7664		4.1	5051			5479
(O6 ₃ :N65)		7780	(6 ₅)	3.9	5080	(N65) (O:6:O)	3.9	5584
(S6) (6) ₃ (C:C)		8089	(6 ₈)	4.8	5176	(N ₂ 6 ₃)		6818
(S6 ₃ :N665)		8154	(N6) ₂	4.0	5384	(O6) (6) ₃		7566
(SN65:C) (N:6:C)	4.8	8307	(N6 ₃ :C) (N6 ₃)		6042			7575
(SN665:C) (N66)	4.9	8356	(O6) (6) ₃		7569	(O66) (6)		7658
	4.9	8357			7578		4.3	7660
			(O66) (6)	4.5	7647	(O:S65:S65:O)		8129
$\lambda_{\max.}$: 525-259.5m μ					7663			8131
			(O6 ₃) (6) (O:C)	5.2	7765	(S:SN5:O) C		8247
(O:C) (C:C) ₉		886				(SN65:C) (SN65) (C:C)		8322
(O:C) (C:C) ₁₀		892	(ON6 ₄ :N)		7941	(SeN65:C) (ON65) (6) (C:C)		8426
(O:C) ₂ (C:C) ₁₁		941	(SN5:C) (ON65) (C:C)		8212			
(O:C) ₂ (C:C) ₁₂		944	(SN65:C) (ON65) (6) (C:C)		8312			
(6) (O:C) (C:C) ₄	4.7	3031			8376			
(6) ₂ (O:N) ₂ (N:N)		3839	(SN6 ₃ :O)	4.0				
	4.5	3841	(SeN65:C) (ON65) (6) (C:C)		8427	$\lambda_{\max.}$: 545-549.5m μ		
(O:6:O)	2.7	3974				(C:C) ₁₉	4.9	229
(O:6:N)	0.1	4024				(O:66:O) (6) (C:C)	3.4	4522
(O:66:O) (C:C)	3.4	4513				(75)	2.6	4561
(665:O)	3.2	4613						
	2.8	4614						

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(N65) (O:6:O)	3.7	5585	(SN665:C) (SN65) (C:C)		8359	(6) (O:N) ₃		3724
(N65) (O:66:O)	3.8	5592	(SN6 ₃ :N)	4.1	8367	(6) ₂ (O:N) (N:N)	4.4	3825
(O:N65:N65:O)		5620	(SeN65:C) (SeN65) (C:C)		8429	(6) ₂ (S:C)		3907
(S:N65:N65:S)		5655			8430		2.6	3909
(S6) (6) ₄ (C:C)		8093				(75)	2.5	4547
(O:S65:S65:O)		8127					2.7	4550
(S:SN5: ₀ C) (SN5:C)		8248	$\lambda_{\max.}$: 560-569.5 μ			(75) (C:C)		4572
(SN65:C) (SN65) (C:C)		8323	(6) ₄ (N:N) ₃	4.9	2387	(75) (6)		4592
		8325	(6) (O:N) ₂		3671	(75) (6) (O:C)	2.7	4596
(SN6 ₃ :O)	4.3	8377	(6) (O:N) (O:C)	3.8	3891	(765)	2.6	4864
						(6 ₅)	4.1	5080
$\lambda_{\max.}$: 550-559.5 μ			(O:6:O)	1.5	3948		2.6	5083
(6) ₄ ([C:] ₇ C)		2146	(O:66:O)		4524	(6 ₈)		5170
(O:6:O) (6) ₂	4.5	4015	(75)	2.4	4532		4.2	5173
	4.9	4019		2.6	4534		4.2	5174
(O:6:C) (6) ₂ (O:C)	4.4	4021		2.5	4538		4.3	5178
			(75) (O:C)	2.7	4575	(N6) (6) (N:N)		5476
(75)	2.4	4548	(75) (O:C)	2.5	4576	(O:N65:N65:O)	4.0	5628
(75) (C:C)		4573		2.6	4578		4.1	5631
(75) (O:C)	2.5	4574	(6 ₃)		4678	(O:N65:N65:O) (6) ₂ (O:C) ₂		5654
(75) (O:C)	2.5	4580	(O:6 ₃ :O)	4.2	4797		4.7	5933
	2.5	4582			4811	(N665)	3.0	6011
(O:6 ₃ :O)	4.2	4769	(6 ₈)	4.2	5164	(N6 ₃)		7367
	4.1	4770	(N65) (O:66:O)	3.2	5590	(N ₄ 6 ₃ 5) (6)		7567
		4816	(O:N65:N65:O)	3.9	5632	(O6) (6) ₃		7939
	3.9	4824	(N66:C) (N66) (C:C)	4.9	5859	(ON6 ₃ :N)	4.9	7941
(7665)	3.4	5056	(N665)	4.5	5936	(ON6 ₄ :N)		8081
(7665) (O:N)	3.2	5057	(N6 ₃) (N:C)	4.3	6026	(S6) (6) ₃		8125
					6027	(O:S65:C) (S65)		8213
			(N26 ₃) (O:C)		6826	(SN5:C) (SN5) (C:C)		8214
(6 ₆)	4.1	5135						8311
(6 ₇)		5144	(O6) (6) ₃		7565	(SN65:C) (N66) (C:C)		8314
	4.1	5146			7577	(SN65:C) (O:SN5:S65:O)		8316
(N6) (6) (N:N)	4.6	5472	(O66) (6)		7665	(SN65:C) (SN65) (C:C)		8327
	4.5	5473			7669	(SN665:C) (SN665) (C:C)		8363
		5480	(O ₆ 3:N ₂ 6:O)		7783			8364
(N65:C) (6)	4.6	5594	(O:S65:C) (S65)		8118			8365
(N66:C) (N:6:C) (C:C)	4.7	5854	(SN5:C) (SN5) (6) ₄ (C:C)		8216			8366
		6041			8217	(SeN5:C) (SN65) (C:C)		8423
(N6 ₃ :C) (N6 ₃)		7666	(SN65:C) (SN65) (C:C)		8324			
(O66) (6)		7668	(SN665:C) (SN65) (C:C)		8360			
(O6 ₃) (6) (O:C)		7763	(SeN5:C) (SN65) (C:C)		8422			
			(SeN65:C) (SeN65) (C:C)		8428			
(O:S65:S65:O)		8128			8432			
		8130				$\lambda_{\max.}$: 580-589.5 μ		
(S6 ₃ :N65)		8153				(6) ₂ (N:N)	3.1	2314
(SN65:C) (SN65) (C:C)	5.2	8321	$\lambda_{\max.}$: 570-579.5 μ			(6) (O:C) (C:C) ₅		3035
		8326	(6) (O:N) ₂		3674	(6) ₂ (O:C) (C:C) ₄	4.7	3111
		8328				(75)	2.5	4528
		8329						4562
							2.7	4563
							2.5	4566

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
(75) (C:C)		4571			8362	(76) (O:C)		4576
(6g)	4.9	5169	(SeN5:C) (SN65) (C:C)		8421	0	2.6	4578
	4.0	5171					2.5	4581
	4.2	5176					2.5	4583
(O:N65:N65:O)	4.2	5624	$\lambda_{\max.}$: 600-609.5m μ					4584
(O:N65:N65:O) (O:N) ₂		5651						4585
0			(6) ₅ (N:N) ₄	4.9	2390	(75) (6) (N:N)	2.7	4595
(N665)	4.7	5932		4.8	2393	(6 ₃)		4678
	4.7	5935	(O:6:C) (6) ₂	5.0	4020	(O:6 ₃ :O)	2.3	4766
(N6 ₃ :C) (N6 ₃) (C:C)		6043	(O:66:N)		4524	(6g)	4.2	5177
(O6 ₃ :N665)		7781	(75)	2.4	4530	(O:N65:N65:O)		5613
(S6) (6) ₃		8078		2.6	4564			5629
(S6:C) (O6) (6) ₄		8096		2.5	4566		4.3	5630
(SN5:C) (SN5) (6) ₄ (C:C)		8215	(75) (C:C)		4573		4.4	5634
(SN65:C) (N:C) (C:C) ₂			(75) (O:C)		4580		4.4	5638
	5.3	8294	0	2.5	4582			5643
(SN665:C) (SN65) (C:C)		8358	(75) (6)		4591		4.3	5645
(SeN65:C) (SeN65) (C:C)		8431	(O:6 ₃ :O)	2.8	4759			5647
			(6g)	4.3	5163	(N6 ₃ :C) (N6 ₃) (C:C)		6044
				4.1	5175	(N ₄ 6 ₃ 5)		7362
$\lambda_{\max.}$: 590-599.5m μ			(O:N65:N65:O)		5615	(O6) (6) ₃		7568
(O:N)		1261		4.2	5616			7576
(6) ₂ (S:C)	2.6	3910			5617	(S6) (6) ₃		8077
	2.6	3911		4.0	5621			8079
(N:6:C) (6) ₂	5.0	3940		4.4	5633	(SN65:C) (6) (N:C) (C:C) ₂		
(O:6:O)	1.3	3949		4.3	5637		4.9	8302
(75)	2.6	4536		4.1	5639	(SN65:C) (O:SN5:SN5:O)		8317
(75) (O:C)		4574		4.3	5642	C:		
(75) (6)	2.7	4593		4.2	5649	(SN6 ₃ 5:C) (SN6 ₃ 5) (C:C)		
(75) (66)	2.8	4597	(N66:C) (N66) (C:C)	5.3	5859		4.1	8380
(665:C:C:C:C:C:665)		4608	(N665)	4.8	5937			
(O:6 ₃ :O)	4.2	4769		4.8	5938			
	4.1	4770		4.7	5939			
		4812		4.8	5940			
(67)	3.4	5161	(O6) (6) ₃		7579	(6) ₂ (S:C)	1.8	3905
(6g)	4.1	5180			7580	(75)	2.5	4545
(N65) (O:6:O)	3.9	5586	(O6 ₃ :N665)		7782		2.4	4547
(O:N65:N65:O)		5618	(S6 ₃ :N665)		8154		2.6	4567
	3.9	5623	(SN65:C) (O:SN5:SN5:O)		8315	(75) (C:C)		4572
	4.2	5636	C:			(75) (O:C)	2.7	4575
	4.2	5641	(SN6 ₃ :N)		8368	(75) (6)		4592
	4.3	5648			8369	(75) (6) (O:C)	2.6	4596
(O:N65:N65:O) (O:C) ₂						(6 ₃)		4677
	3.8	5650	$\lambda_{\max.}$: 610-619.5m μ			(O:6 ₃ :C) (6) ₂	4.1	4862
(N ₂ 6 ₃)	0.5	6804				(765)	2.5	4863
(ON6 ₃ :N)		7940	(N:6:C) (6)	5.1	3936	(765) (6)	2.8	4868
(O:S65:C) (S65)		8116	(N:6:C) (6) ₂	5.0	3939	(6 ₆)	3.1	5129
S6 ₃ : (O:N ₂ 6 ₃ :O)		8155	(O:6:O)	1.3	3947	(6g)	4.5	5173
(SN5:C) (6) (N:C) (C:C) ₂			(75)	2.4	4532		4.2	5179
	5.1	8303		2.5	4534	(O:N65:N65:O)	4.2	5181
(SN665:C) (SN665) (C:C)				2.4	4538		4.2	5622
	5.1	8361		4.4	4554		4.3	5635
							4.4	5640
								5644

absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.	absorbing chromophore	log ϵ	no.
	4.4	5646		3.2	4836	$\lambda_{\max.}$: 680-689.5m μ		
(N665)	4.8	5934	(67)	3.6	5161	(O:N)		1243
(N63:C) (N63) (C:C)		6043	(N4635) (6)		7364		1.4	1245
(N4635)		7361	(06) (6)3 (C:C)		7582	(75)	2.5	4567
(ON64:N)		7941	(06) (6)4 (C:C)		7588	(75) (C:C)		4572
(S6) (6)4 (C:C)2		8094	(S6:C) (S6) (6)4		8097	(75) (O:C)	2.3	4575
(S6:C) (S6) (6)4		8098	(SN65:C) (SN65) (C:C)2	5.4	8331		2.3	4578
$\lambda_{\max.}$: 630-639.5m μ			(SN63:N)		8370	(75) (6)		4592
					8373	(75) (6) (O:C)	2.3	4596
(6) (O:C) (C:C)6		3039	$\lambda_{\max.}$: 660-669.5m μ			(68)	4.6	5181
(75)	2.5	4528				(N4635) (6)		7366
	2.6	4550				(S6) (6)3 (C:C)		8087
	2.6	4565	(O:N)	1.3	1241			8088
	2.6	4570	(75)	2.2	4530			8090
(75) (O:C)	2.5	4577		2.0	4548	$\lambda_{\max.}$: 690-699.5m μ		
O	2.5	4579		2.0	4566			
	2.8	4586		2.2	4566	(O:N)	1.3	1244
(765)		4866	(75) (C:C)		4573	(75)	2.1	4528
(O:N65:N65:O)		5614	(75) (O:C)	2.2	4582		2.0	4547
(O:N65:N65:O) (O:N)2		5652	O		4584		2.2	4550
			(75) (6)		4591	(75) (O:C)		4577
(O:N65:N65:O) (6)2		5653	(765) (O:C)		4867	O	2.4	4586
(06) (6)3 (C:C)		7585				(N4635) (6)		7365
(S6:C) (06) (6)4		8095	(68)	4.7	5163	(06) (6)3 (C:C)2		7587
(SN63:N)	4.7	8372		4.5	5175			
$\lambda_{\max.}$: 640-649.5m μ				4.6	5177	$\lambda_{\max.}$: 700-799.5m μ		
			(O:N65:N65:O)		5626			
(O:N)	2.8	1246	(N4635) (6)		7363	(6)2 (O:C) (C:C)6		3119
		1249	(S6) (6)3		8080	(6) (O:N)	1.3	3455
(75)	2.5	4536	(SN63:N)		8369	(6) (O:N) (O:N)	1.7	3901
(75) (C:C)		4571			8371	O		
(75) (6)	2.7	4593	$\lambda_{\max.}$: 670-679.5m μ			(75)	2.1	4536
(75) (66)	2.8	4597					2.1	4545
(765) (6)		4869	(O:N)		1242		2.1	4554
(68)	4.4	5180		1.2	1247		2.1	4567
(69)	4.6	5188			1250		2.1	4570
(O:N65:N65:O)		5625	(75)	2.0	4532	(75) (C:C)		4571
		5627		2.1	4534	(75) (O:C)		4577
(06) (6)3 (C:C)		7583		2.1	4538	O	2.1	4579
$\lambda_{\max.}$: 650-659.5m μ			(75) (O:C)		4576		2.4	4579
			O		4581			4581
(O:N)	1.3	1248		2.4	4583		2.0	4583
(6)2 (O:C) (C:C)5	4.7	3115			4585			4584
(75)	2.6	4569	(O:63:O)		4776			4585
(75) (O:C)	2.0	4574	(68)	4.6	5179	(75) (6)		4591
(75) (O:C)		4580	(O:N65:N65:O)		5619		2.4	4593
O			(SN63:N)		8368	(75) (66)	2.5	4597
(O:63:O)		4778				(O:63:O)	3.9	4752
						(67)	3.9	5161

absorbing chromophore	logε	no.	absorbing chromophore	logε	no.	absorbing chromophore	logε	no.
(N ₄ 6 ₃ 5) (6) (O:C) O		7368	(S6:C) (S6) (6) ₄ (C:C)		8100	λ _{max.} : 800mμ		
(O6) (6) ₃ (C:C) ₂		7586	(SN65:C) (SN65) (C:C) ₃	5.4	8332	(6 ₇)	4.1	5161
(S6) (6) ₃ (C:C) ₂		8091	(SN6 ₃ :N)		8371	(S6:C) (S6) (6) ₄ (C:C)		8099
		8092			8373			

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